

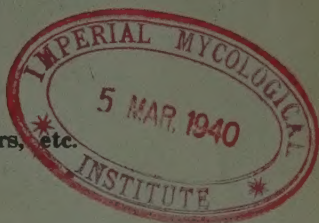
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Vol. XLI. No. 1

JANUARY 5th, 1940

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Feature Articles

in this

Issue

Fruit Crop Prospects
Co-Operative Marketing
Science in Horticulture
Local Marketing of Fruit
Interstate News and Notes
Dried, Canned and Citrus Fruits
N.Z. Government Buys Apple & Pear Crop

LIGHTNING

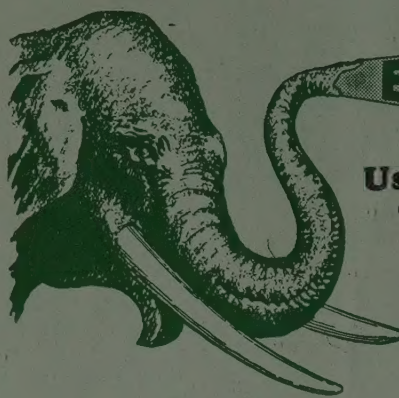
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Extract from "BETTER FRUIT," March, 1937, by Dr. R. L. Webster, Entomologist, State College of Washington, Pullman: **CODLIN MOTH COVER SPRAYS**—"Ever since the imposition of an arsenic tolerance in 1926, and even before that time, investigators have been testing other materials which may be used in place of lead arsenate. Following all these intensive and extensive investigations lead arsenate appears to have certain inherent qualities which place this material foremost as an insecticide for codlin moth control."

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SCIENCE IN HORTICULTURE

PEAR ROOTSTOCKS FROM SEED — TOP WORKING WILLIAMS PEAR TREES — CHANGES IN FRUIT TREES
IN DIFFERENT SURROUNDINGS — SOIL DEFICIENCIES — LEAF BUD PROPAGATION OF LOGANBERRIES
AND YOUNGBERRIES.

OBSERVANT horticulturists always appreciate scientific information from all parts of the world.

Of particular interest are the "Horticultural Abstracts" published quarterly by the Imperial Bureau of Horticulture, E. Malling Research Station, Kent, England.

Here are just a few from the latest publication just to hand:—

PEAR ROOTSTOCKS FROM SEED.

Experiments on Methods of Germinating Pear Seeds.

By H. M. Tydeman, East Malling Res. Stat.

THE DIFFICULTY OF GERMINATING Pear seed has led to investigations in S. Africa and at East Malling into the optimum conditions for ensuring satisfactory germination. The effect of the following methods of keeping the seed prior to germination were tested:—

(1) Seeds taken from fruit in Autumn and sown in shallow boxes which were placed in (a) a warm greenhouse; (b) an unheated greenhouse; or (c) open ground.

(2) Fruits kept in a clamp out of doors from picking till mid-February and seeds then sown as above (a), (b), and (c).

(3) Seeds taken from ripe fruits in late Autumn, stored in paper bags in warm room till February 18, then sown as in (a), (b), and (c).

(4) Seeds overwintered from November in a warm room, in an earth clamp or in a cold chamber at 0 deg. C. and sown in mid-June.

(5) Seeds stored out of fruits in a warm room, or in fruits in an earth clamp, or in fruits in a cold chamber, and sown at intervals from mid-October to mid-July.

The best germination results were obtained when the seeds were given a single short cold period, either while still in the fruit or in the seed boxes.

When stored within the fruit the seeds should be extracted and sown in early Spring. No evidence was shown of large or consistent differences in the natural viability of the seed from different selections.

TOPWORKING THE WILLIAMS PEAR TREE.

By A. Pieri, Note Fruttic, Italy.

THE EXTREME VARIABILITY in growth of the Williams Pear worked on Quince is a great drawback, states the author. He is uncertain of the reason, since lack of uniformity is apparent even when scion wood is taken from the same tree. Moreover, if the cause lay in the use of seedling Quince rootstocks, one would expect a similar lack of growth uniformity in other varieties. This is, however, absent. He therefore recommends those who suffer from this variability to topwork such varieties as Passe Crassane, Louise Bonne, Vicar of Winkfield or Beurre Hardy.

CHANGES IN THE NATURE OF FRUIT TREES BROUGHT ABOUT BY DIFFERENT SURROUNDINGS.

By I. D. Kolesnik, in "Vernalization," Moscow.

STEM CUTTINGS taken from four Apple varieties (Winter Golden Pearmain, Glogerokha, Yellow Bellflower, Calville Beauty) coming from 11 different localities in U.S.S.R. were topworked to bearing trees in Odessa (age of the trees not stated.—Ed.). Each tree was worked with a single variety but with scions obtained from 11 different places. There were marked differences in the appearance of the fruits within the same variety.

SOIL DEFICIENCIES.

By J. A. Prescott, Reprinted from Scientific Review.

THE DEFICIENCY SYMPTOMS of the major elements with particular reference to their incidence in Australian soils and agriculture are discussed by the author. The following points are interesting to horticulturists:—

Australian soils seem to be well supplied with magnesium except in parts of N.S. Wales, where a leaf yellowing of citrus has been found associated with a low Mg. content of leaves and to respond to dressings of magnesium limestone.

Tea yellows in East Africa has been traced to sulphur deficiency.

Potassium deficiency symptoms in fruit trees have been worked out at Long Ashton in England.

Copper deficiency is known to cause exanthema of citrus in Florida, W. Australia, and N.S. Wales, and a dieback of other fruit trees also responds to copper salt treatment.

Boron deficiencies have been noted in top rot of Tobacco and heart rot of Sugar Beet, in internal cork of Apples, in brown heart of Swedes and Turnips.

Zinc deficiency is responsible for mottle leaf of citrus, rosette of Pecan, and little leaf of Peach.

LEAF BUD PROPAGATION OF LOGANBERRY, YOUNGBERRY, AND BLACKBERRY.

By R. J. Garner and D. H. Hammond, East Malling Research Station.

A METHOD OF PROPAGATING Loganberries, Youngberries and Blackberries by means of leaf cuttings is described. Every leaf with its bud on the selected shoot may be used except the unexpanded leaves at the tip.

To remove the leaf bud a shallow cut is made below the bud; this is joined by a second cut starting $\frac{1}{2}$ inch above the bud and passing underneath it while not penetrating the pith below; in other words the bud and its leaf are pared off.

After detachment the leaf buds must be kept moist until planting, which should not be delayed.

The cuttings may be set in cold frames 2 inches apart in rows 5 inches apart. The bud is just covered with the medium leaving the upper surface of the leaf exposed to light. The frames are covered and shaded. Wilting must be avoided and the usual watering, not overdone, is needed.

In 4 weeks air may be admitted and in 6-8 weeks the lights can be removed. The cutting bed during these trials was composed of freshly dug soil, one barrow-load of humus and one barrow-load of white sand to each 6 ft. x 4 ft. frame, the added material being incorporated in the top 6 inches of soil and trodden and levelled off. A normal rooting percentage should be 40-50 per cent. This could be improved by bottom-heat, but the object of the work is to provide a quick and inexpensive method for commercial growers, especially of varieties, such as Youngberry and Parsley-leaved Blackberry, which do not respond well to tip-layering.

Even with plants that tip-layer well the number of layers per plant is limited to about six, whereas two shoots of leaf-buds should produce about 20 plants. The plants grown on from these leaf-bud cuttings have proved most vigorous. The best time for the work is from July to September (January to March in Australia) and cuttings should not be disturbed until Spring.

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News of the Month

Apples and Pears.

WITH the stabilising of the canned and dried fruits industries, and the reasonable prospects for handling the coming citrus crops, the main topic of interest is still that of the disposal of the 1940 Apple and Pear crops, and the Apple and Pear Board is working at full pressure to achieve success. The task of disposing of the surplus Apple and Pear crops in Australia is one of considerable magnitude.

The goodwill of growers and distributors is needed in the difficult days ahead. The educational publicity campaign is designed to increase fruit consumption in this country; this project has all possibilities for permanently benefiting the industry. Australians, as a whole, do not eat sufficient fruit. The forthcoming campaign should correct that tendency and the result will undoubtedly be that the health of the community will be improved and costs of living will be reduced. The objective is to substantially increase Apple and Pear consumption during the flush of the season in order to absorb quantities which would normally be exported, thus to reduce the pressure on cold storage space and to avoid undue competition with other fruits.

Synthetic Drinks.

THIS matter is one which has received a certain amount of attention from time to time, but now assumes major importance. Statements have been made to the effect that many of the synthetic drinks now offered to the public contain deleterious acids. This matter warrants further investigation. Should these allegations be proved, existing health regulations should be tightened. It goes without saying that drinks made from pure fruits are highly beneficial to the human system, though probably these may be slightly more expensive than synthetic drinks. Still the health of the community is a matter of vital concern to every citizen.

It would appear to be incontrovertible that certain synthetic drinks should not be permitted to masquerade as fruit drinks. Drinks bearing fruit names should be made from the actual fruits themselves.

Figures have been published in this Journal telling of the enormous increase in the consumption of pure fruit drinks in England, America and on the Continent. There is no reason why a similar development should not take place here.

Members of Parliament, the Medical Profession, Health, Nutrition and Research Authorities are invited and urged to investigate this matter and to issue authoritative statements. It is a matter of national importance.

PERSONAL

Following research into the subject of maturity and the correct time for picking Grapes, Mr. A. V. Lyon, M.Ag.Sc., of the Merbein Research Station, Victoria, will address meetings of growers in several Murray Valley areas prior to harvest.

Mr. Peter Malloch, of Irymple, Vic., who recently returned from a visit to the Pacific Coast of U.S.A., also Canada, states that Australian dried fruits are widely appreciated for their high quality and guaranteed uniformity of packing.

Mr. H. Goldsack, of Blackwood, S. Aust., read an interesting paper before the recent Hills Branches' conference of the South Australian Bureau of Agriculture. He dealt with growing varieties suited to particular districts, standardised grading and packing and gave useful marketing hints. This paper, which contains many home truths, is published in this issue.

Mr. A. W. Fairley, managing director of the Shepparton Fruit Preserving Co., Victoria, has been a tower of strength to the industry for many years past. He assisted materially in bringing the cannery to its present splendid position and is held in the highest esteem wherever known.

Mr. J. G. B. McDonald, M.L.A., has been elected a director of the Shepparton Fruit Preserving Co. Under the rules of the Northern Victoria Fruitgrowers' Association, Mr. McDonald can no longer be an executive officer of that Association. He has rendered notable service to the industry over the past twenty years in an organising capacity. He will render equally efficient work as a director of the cannery.

In a paper before the Hills Branches' Conference of the S. Aust. Bureau of Agriculture, Mr. A. L. Cobbledick, of Carey's Gully, contributed a paper dealing with the securing of a payable price for Apples straight off the tree. Particulars are published in this issue.

OBITUARY.

The death occurred on December 6 of Mr. Thomas Adamson, a well-known Sydney nurseryman. Deceased was proprietor of the "Rosea" Nursery, at Ermington, and was a specialist in Roses and fruit trees.

Mr. Adamson had been in ill-health for a considerable period, having suffered a stroke some time ago. The funeral to the

Northern Suburbs Crematorium was largely attended by friends, and members of the U.A.O.D., of which the deceased was a member.

The late Mr. Adamson took an active interest in local affairs over a long period, and was an ex-Mayor of the district. He is survived by his widow and a married daughter.

NEWS IN BRIEF.

The importance of wise use of irrigation water, to prevent water logging is stressed by our River Murray correspondent.

Owing to a shortage of carbonate of potash, problems are arising regarding the dipping of Sultanas. The recommendations of the Mildura Packers' Association are given in our River Murray correspondent's notes.

South Australia has submitted an estimate for the export of 305,000 cases of Apples and 35,000 cases of Pears between March and April next.

The New Zealand Government has decided to purchase the 1940 crop of Apples and Pears in the Dominion at an over-all price of 5/- per case.

Large numbers of wasps to act as parasites on the Oriental Peach Moth have been liberated in the Goulburn Valley.

Sultanas on the Murrumbidgee Irrigation Areas will be light this season. This variety is deemed unsuitable and is being worked over to table or wine Grapes.

Letters to the Editor

The Editor,
"Fruit World."

Sir,

Re Fruit Marketing Proposals.

At a meeting of the East Burwood and District Fruitgrowers' Association, held on December 14, 1939, I was directed to forward to you the following resolution passed at that meeting—

"That at a large attended meeting of East Burwood and District Fruitgrowers' Association, the growers protest against the proposal of the Apple and Pear Board to deprive growers of the right to sell their Apples and Pears in the Queen Victoria Markets, Melbourne."

Yours faithfully,
G. C. KARNAGHAN.
Secretary.

Letter received from R. Serpell, Doncaster, Vic., dated December 18, 1939, pointing out that growers had no vote as to the creation of a statutory Apple and Pear Board; further it was stated that this Board would have no control over the local markets. The announcement that the crop would be acquired by the Government came as a "bolt from the blue." As more fruit will have to be sold in Australia, costs should be kept down to a minimum, and this can best be accomplished by allowing growers to use their local markets. Should growers not be permitted to use the Queen Victoria and other markets as hitherto, an economic advantage will be laid waste.

As Spraying is a Necessity —then use the World's Best—

NEPTUNE SPRAYS...

The better quality of NEPTUNE Sprays is always obvious by comparison with others. NEPTUNE Sprays conform to the highest standards, and they are consistently uniform in strength and quality. Successful orchardists recommend them. Try them yourself and prove that they're better!

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(“A,” “C,” or Heavy Base)

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BLUESTONE

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BERGER'S ARSENATE
(Powder or Paste)

COLLOIDAL LEAD
ARSENATE

ENGLISH BLUESTONE
SNOW

GENUINE BLACK
LEAF 40

NEPTUNE LIME
POWDERED SULPHUR

COPPER SPRAY

NEPTUNE SPRAY
SPREADER



NEWS IN BRIEF

A new company has been formed at Griffith, N.S.W., for processing fruit. The building will be on the long unused foundations.

Although South Australia was due for an "on" year for Apples in 1940, and a record crop was anticipated, expectations have not been realised and it is now certain that crop will be the lightest for many years. The estimated harvest is from between 700,000 and 750,000 bushels.

Satisfactory balance sheets were presented to shareholders of the three co-operative canneries in the Goulburn Valley, viz., Shepparton, Ardmona and Kyabram.

According to present indications New Zealand will have an average to heavy crop of Apples and Pears in the coming season.

New plantings on the Griffith section of the M.I.A. this season are estimated at 25,000 citrus trees (of which 14,000 were late Valencias and 2,500 Washington Navels), together with 16,000 deciduous trees, mostly canning Peaches, Apricots, and Pears.

Apples are light on the Murrumbidgee Irrigation Areas this season; Pears generally good; Sultanas light; Apricots medium.

The Griffith Producers' Co-operative is shortly spending £10,000 on new buildings and equipment, including the duplication of the cool storage capacity.

There are indications that Tasmanian production will at least equal last year's crop of 4,500,000 bushels.

Meetings of Apple and Pear growers have been held in various parts of the Commonwealth, stating that the proposed advance of 2/- a case on Apples and 3/- a case on Pears is seriously inadequate, and requesting an increased advance.

The Tasmanian Orchardists and Producers Ltd., Hobart, earned a profit of £2,013 in the year ended September 30, 1939. A dividend of 10 per cent. was declared.

In reply to a query concerning the processing of Figs polinated by the Blastophagus Wasp, our M.I.A. contributor states this method improves the quality of the fruit.

APPLES IN COOL STORAGE.

The following statement showing the quantities of Apples reported to be held in cool stores in Victoria on September 30, October 31, and November 30, 1939, has been released by the Government Statist.

September 30.	October 31.	November 30.
Cases.	Cases.	Cases.
295,000	169,000	73,000



Spraying for scale control is an important summer operation in the citrus grove.

Citrus Crops in U.S.A.

Citrus Crops in California Have Made Good Progress — The Fruit is of High Quality

In the table below are shown such forecasts of new crops as are available, preliminary estimates of the old crop (1938-39), and November 1 "per cent. of full crop" reading for California and other citrus-producing States for 1939 and the three previous years. Production estimates are recorded on the basis of equivalent packed boxes.

Crop And State.	Production	Prod. Est.	"% of full crop"			
	Forecasts. 1939-40 Crops.	Of crops Harv. 1938-39 Crops.	1939.	1938.	1937.	1936.
Grapefruit—						
California	1,800,000	1,824,000	71	77	66	76
Arizona	2,500,000	2,700,000	70	73	86	63
Florida	17,100,000	23,600,000	53	80	52	74
Texas	15,200,000	15,670,000	64	77	62	74
Oranges—						
Calif. — Navel & Misc.	14,960,000	17,900,000	68	82	74	76
Calif. — Valencia .	—	22,630,000	72	81	76	77
Azizona—All	460,000	430,000	73	74	78	53
Texas—All	2,650,000	2,815,000	68	85	63	77
Louisiana—All . .	260,000	385,000	62	95	58	95
Alabama—All . . .	75,000	96,000	62	81	67	85
Mississippi—All . .	59,000	85,000	66	98	84	35
Florida—All	35,900,000	33,900,000	77	80	80	75
Lemons—						
California	—	11,097,000	69	81	62	77
Limes—						
Florida	—	95,000	62	75	70	75

Blyth's "BLUE BELL" Quality Sprays

MADE IN AUSTRALIA

For Twenty-five Years "BLUE BELL" Arsenate of Lead has Proved a Faithful Friend to Growers.

Extract from "Better Fruit" (U.S.A.), Spraying and Pest Control Edition, February, 1937.

CODLIN MOTH CONTROL

By Arthur D. Borden, University of California.

"LEAD ARSENATE is our standard spray material to-day. None of the many substitutes which have been tested have proved to be as toxic and effective in control."

Arsenate of Lead (Paste or Powder), Lime Sulphur, Special Copper Mixture (Fungicide), Spray Spreaders, White Oil, Nicotine Sulphate, Red Oil, etc.

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Tasmania: W. D. Peacock & Co. Ltd., Princes Wharf, Hobart. H. Jones & Co. Ltd., Charles St., Launceston.
New South Wales: Lanes Ltd., 69 Abercrombie St., Sydney.
Queensland: A.C.F. and Shirleys Fertilizers Ltd., Brisbane.

South Australia: George Wills & Co. Ltd., Gilbert House, Gilbert Place, Adelaide.
Western Australia: F. H. Faulding & Co. Ltd., 313 Murray Street, Perth.

Works: PRAHRAN GROVE, ELSTERNWICK, VICTORIA

L 1468.

RADIO SPRAYING ADVICE.

The Victorian Department of Agriculture has made arrangements with several stations to broadcast advice to growers for the control of codling moths on apples and Pears:—

3UZ Melbourne: "Man on the Land" Session — Tuesdays and Fridays at 6.35 a.m. Advice for all districts.

3GL Geelong: Mondays at 7.25-7.35 a.m. Advice for Geelong and Mornington Peninsula.

3UL Warragul: Friday at 7 a.m. Advice for Gippsland.

3SR Shepparton: Special advice daily, when required. Ardmona, Kyabram, Rochester and Shepparton are co-ordinated for this advice.

Stationary Spray Plants

Success in Victoria.

Reports from those who have installed central stationary spray plants in Victoria are in terms of satisfaction regarding their installations.

Despite the flooding in the Goulburn Valley, Mr. E. J. Rule stated his spraying programme was carried through on time.

Messrs. Turnbull Bros., of Ardmona, stated that their central stationary plant has cut down spraying costs by half. They have extended the system to cover another 20 acres half a mile away, and state "distance

makes no difference to the pressure."

Mr. M. R. Gorman, of Shepparton, states their spraying was carried on when the ground would not carry horses and vat. They are now installing the system on 10 acres of Pears at Toolamba.

:: :: ::

In New Zealand and in Tasmania, these central spraying plants have been established for a longer period and are working satisfactorily.

APPLE AND PEAR ACQUISITION.

Pears To Remain.

For some time past efforts have been made by representa-

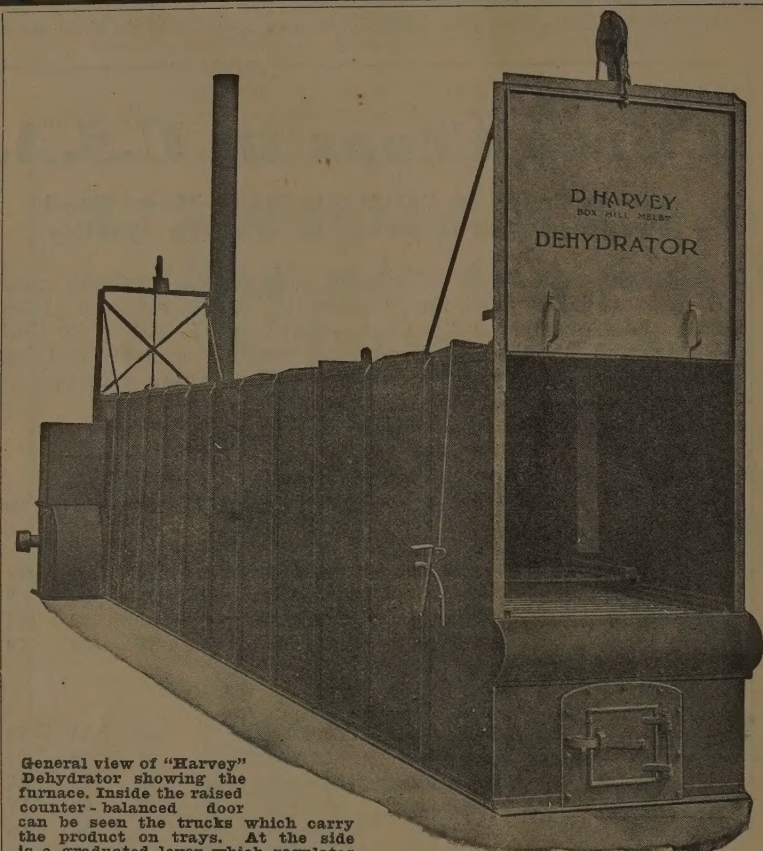
tives of growers in some of the mainland States to have Pears excluded from the acquisition proposals.

The Minister for Commerce (Senator McLeay) stated that careful consideration had been given to the representations. Growers in Tasmania and Western Australia were opposed to the exemption, and he could not grant it.

:: :: ::

Reports to hand from Tasmania at the end of December indicate that many growers have failed to send in their registration forms.

Failure to fill in the required forms involves heavy penalties.



General view of "Harvey" Dehydrator showing the furnace. Inside the raised counter-balanced door can be seen the trucks which carry the product on trays. At the side is a graduated lever which regulates automatically the dry and moist air. The blower and stack are shown in the distance.

Fruitgrowers

THE
"Harvey" Air Re-Circulation Dehydrator

Solves the Problem of Marketing The Fruit Crop

SUCH AS APPLES, PEARS, PRUNES, APRICOTS, PEACHES, SULTANAS, Etc.

It is the best, cheapest, and most efficient type of dehydrator known. Used by all the most up-to-date Packing Houses and Sheds.

LARGE OUTPUT—

ECONOMICAL TO OPERATE

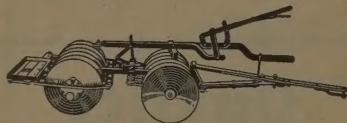
The Fruit is placed in one end and comes out at the other dried to Perfection.

Grade Your Fruit with the "Harvey" Apple and Pear Graders.

Remove Spray with the "Harvey" New Horse Hair Belt Type Polishing Machine.

Citrus Growers and Packing Houses—We Build to Suit Your Requirements.

— "HARVEY" IMPLEMENTS — MAKE GOOD WORK EASY



"HARVEY" PATENT OFFSET TANDEM DISC CULTIVATOR: Cultivates right up to the butts of the trees or vines while the Tractor is driven right out in the middle of the row.

Proved to be an excellent machine for deeply cultivating heavy irrigation land.

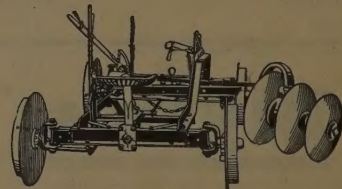


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S.A.—Cole & Woodham, Box 12, Renmark.

New Zealand Government Purchases 1940 Crop of Apples and Pears

Average Price 5/- per case

BY COURTESY of the general manager of the N.Z. Fruitgrowers' Federation Ltd. (Mr. A. Osborne) we are publishing hereunder details of the N.Z. Government's purchase plan for Apples and Pears for the 1940 season:—

A meeting between the Minister of Marketing and the N.Z. Fruitgrowers' Federation Directorate and members of the Fruit Board took place on December 5, and the Minister made his final offer to the industry, which, after full and careful consideration, was accepted by the growers' representatives.

The scheme is designed to return to the industry an average price of 5/- per case at the assembly point and is based on the purchase by the Government of the whole crop down to Commercial grade, at a series of prices graduated according to variety and grade.

The scheme is compulsory, the only grower exempted being the one who sells his fruit direct to the consumer. It is stated, however, that, in the case of growers situated in outlying districts and selling direct to retailers, special investigations will be made with a view to obviating undue hardship or upsetting the trade.

The grades are to be Extra Fancy, Fancy and Commercial grade, Commercial grade being a combination of the present Commercial A, plus a portion of the fruit at present being sold under Commercial B grade. In view of the present difficulties associated with overseas shipping, it is suggested that it may be necessary to exclude Commercial grade from export and it may also be necessary to introduce restrictions as regards counts. The possible desirability of introducing restrictions designed to prevent the selling of fruit below these grades at the orchard gate is also envisaged.

In order to complete the statistical information to be compiled by the Department, growers who are selling direct to consumers, and are thus exempted from the scheme will be required to submit returns of sales to the Department from time to time.

The staff of the Fruit Board is to be absorbed by the Marketing Department, and it is suggested that the personnel of the Fruit-export Control Board should continue as an Advisory Committee to the Department, although the functions at present carried out by the Board will become the responsibility of the Department itself.

The agreed prices are as follows, local being given first in each case.

Apples.

Group 1.

Cox's Orange,	Dougherty,
Tasma, Granny Smith, Cleopatra, Golden Delicious.	
Extra Fancy . . .	5/10 6/2
Fancy	5/4 5/8
Commercial	4/6 4/10

Group 2.

Gravenstein, Stayman Winesap, Albany Beauty, Jonathan, Red Astrachan, Beauty of Bath, Delicious, Newtown Pippin, Duchess of Oldenburg, Ballarat, Kidd's Orange Red, Prince Alfred, Rome Beauty, Frimley Beauty, Red Delicious, Sturmer, Yates, Red Statesman, Rokewood, Giant Jeniton, Richer Red Delicious, Irish Peach.

Extra Fancy . . .	5/4 5/8
Fancy	4/10 5/2
Commercial	4/- 4/4

Group 3.

All other varieties.

Extra Fancy . . .	5/- 5/4
Fancy	4/6 4/10
Commercial	3/8 4/-

Pears.

Group 1.

Winter Cole, B. Bosc, Louise bon Jersey, W.B.C., Doy du Comice, Packhams, W. Nelis, Josephine, Marie Louise.

Fancy	5/6 5/10
Commercial	4/8 5/-

Group 2.

P. Barry, B. Diel, Harr. Vict., Glou Morceau, Capiaumont, L'Inconnue, B. Clairgeau, Conference, Winter Bartlett, Keiffer, B. Easter, Various, Vicars, Fertility.

Fancy	4/10 5/2
Commercial	4/- 4/4

These prices will be subject to adjustment for such variations as the use of second-hand cases or packing for cool store without wraps and are calculated for fruit delivered at assembly points, or depots approved by the Marketing Department. In cases where fruit is held in grower's own cool store special arrangements will be made by the Department with the growers concerned.

The scheme is to commence as early as possible, but in any case not later than the 1st February, 1940.

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Mr. D. S. McLeod, of Havelock North, Hawkes Bay, N.Z., also kindly furnished details of the foregoing scheme. He points out that No. 3 Apple Group consists of some 74 varieties which include Dunns, Wolseleys, Worcesters, Northern Spy, etc.

Mr. H. E. Stephens, Chairman of the New Zealand Fruit Con-

trol Board, said that growers, after estimating their probable crop, will be able to work out approximately their position for the coming season, and be able to decide whether it will pay them to continue producing fruit on the orchard with average commercial varieties and decent production per acre. Growers, he thought, should be able to carry on with these prices.

Mr. T. C. Brash, President of the N.Z. Fruitgrowers' Federation, issued a statement traversing the problems confronting the industry and the negotiations with the Government.

He states that directors of the Federation and members of the Fruit Board know that the price which has been accepted does not cover the cost of production, but a position had been reached where it was clearly evidenced that the final offer had been made by the Minister. The acceptance was made in the following resolutions:—

"Whilst definitely of the opinion that the prices set out in the offer submitted by the Minister do not cover the present cost of production, this combined meeting of the Fruit Board and the Directors of the Fruitgrowers' Federation agree to accept the offer for one year subject to such adjustment relative to grades, sizes, etc., as will ensure that the conditions of the proposal are equitable to all concerned."

"In view of the prices to be paid by the Government for pip fruit during the coming season, being below the pre-

sent cost of production, this Conference of the fruit industry's principal organisations urge the necessity of steps being taken to prevent any increase in present costs without granting to growers a compensating benefit through the schedule of prices."

QUEENSLAND.

At a meeting of growers held at Stanthorpe recently dissatisfaction was expressed at the low rate of advances to growers under the Apple and Pear Acquisition Scheme.

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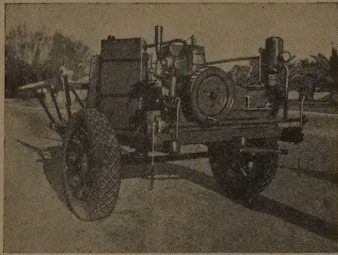
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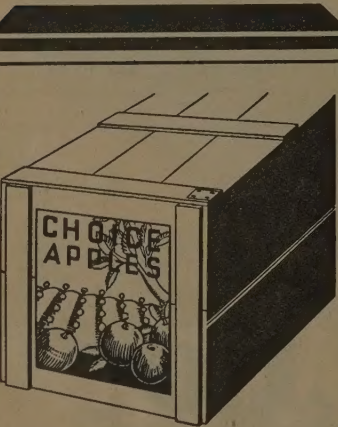


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VICTORIA

Fruit Crop Prospects

The following review of horticultural conditions in Victoria for the month of December is to hand from the Department of Agriculture.

Weather conditions during December retarded the ripening of Apricots and early Peaches which have been harvested in limited quantities in most districts. On the other hand, growth conditions have been ideal.

Early cooking Apples were harvested in many districts, and from Quantong the fruit is reported to be of larger size than usual.

Apple crops in the North East have thinned out considerably since the last report, particularly London Pippin, Delicious, Rome Beauty and Dunn's varieties, but the general yield should be sixty per cent. of the normal. Late frosts and Black Spot have reduced the Walnut crop in that district to probably 50 per cent. of normal, while the Almond crop is not likely to be more than 25 per cent. of normal.

Fungus diseases and insect pests, while evident in all districts, are being well controlled.

Codling Moth has not been as active as usual, but has required careful attention because of the prolonged activity of the first brood.

In the Mildura districts preparations are now being made for the fumigation of citrus for Red Scale.

Quantong.

The annual meeting of the Quantong Fruitgrowers' Association was held at Quantong, Victoria, on November 3, 1939. The manager, Mr. C. H. Jost, presided. There was a large attendance. In addition to local growers there were also present Messrs. J. Cain, W. Slater and H. Lamb, M's.L.A., and J. M. Ward, Superintendent of Horticulture. The financial statement showed a turnover of over £31,000. A final payment on the year's transactions of £2,500 was agreed to.

The Quantong Fruitgrowers' Association is a co-operative organisation, handling various kinds of fruit and vegetables. In particular, a considerable country trade has been developed, due largely to the untiring energy of the manager. Growers are paid an agreed price for the fruit and vegetables on delivery and a final payment when all accounts are settled. Growers' requisites are also dealt with on the same co-operative basis.

:: :: ::

There is much regret due to the fact that, on the way home after the meeting, the local bank

In the Portland district light Apple crops have been further reduced by hail.

Geelong Cherry growers harvested a good crop and market prices were high.

In some parts of the Mornington Peninsula hail has damaged Apple crops to the extent of about 20 per cent. Black Spot infection occurred on Pears and Rome Beauty Apples particularly. Where Apple crops are heavy growers are thinning.

The hot dry weather of December has favored vine growth and checked fungus trouble in all districts.

In irrigated areas Black Spot was previously causing much concern.

The Light Brown Apple Moth also has been very active, but as yet no damage from this source has been noted.

Sultanas, Gordo and Walthams have set a very heavy crop. In the non-irrigated areas, vines are looking very well, but the growth and bunch count are below normal.

In view of the absence of disease, the reserves of subsoil moisture, and the possibility of favorable Summer rains, the prospects of normal production in these areas may be considered quite satisfactory.

Record plantings of Tomatoes have been made in the Horsham irrigation areas, and heavy crops are expected. Planting is in full swing at Pomonal, where a considerable area is being planted out.

manager, Mr. Hodges, was killed in a motor accident. Mr. Hodges was widely esteemed for his efficiency and personality.

Pakenham.

At a largely attended meeting of fruitgrowers on January 3, a resolution was carried pledging support for the Apple and Pear Pool. Whilst the meeting considered the proposed advance of 2/- per case on Apples and 3/- on Pears was not an adequate return, it realised that the Apple and Pear Board was doing its best in the interests of growers.

The Victorian Apple and Pear Acquisition Committee wrote stating that a district committee of three growers was desired, and the Association was asked to submit a panel of nine names, from which three would be selected.

The following were nominated: Messrs. T. F. Black (Beaconsfield Upper), W. H. Black, W. H. Carne, D. C. Black (Pakenham Upper), A. Ramage (Pakenham), G. H. Priest (Pakenham East), L. Thomas (Bunyip), T. C. Whiteside (Officer), and A. E. Towt (Garfield).

VICTORIAN FRUIT SALE RESTRICTIONS.

Metropolitan Shops Now to Close at 7 p.m.

Although fruit shops in Melbourne suburbs shut at 7 p.m. from May to September, they have kept open in the metropolitan area until a late hour throughout the other portions of the year.

However, as a result of a petition from shopkeepers, a regulation has been approved by the Governor in Council for the closing of fruit and vegetable shops at 7 p.m. on Mondays, Tuesdays, Wednesdays, Thursdays and Saturdays, from November to April. It will thus be observed that the 7 p.m. closing applies now throughout the year. Late closing is allowed on Friday night.

The city area bounded by Spencer, Latrobe, Victoria and Spring streets is exempt from the regulation. The new closing will be effective from January 8, 1940.

YOUNG FARMERS' CLUBS.

Interesting developments have taken place in a brief period among members of the Main Ridge (V.) Young Farmers' Club according to a report issued by Mr. J. Courtney, State Supervisor. The main projects — pasture studies and vegetable culture — are conducted in the school grounds. At a recent field day calves, poultry and pigs were exhibited. Project books are being prepared and the work correlated with the school work. Several of the members are specialising in poultry and other projects which are rapidly becoming paying propositions for these Young Farmers, who are already finding their young farmer training very valuable.

FRUIT PICKERS AWARD.

Improved Accommodation Desired.

Dissatisfaction has been expressed by the Victoria-Riverina Branch of the Australian Workers Union with the accommodation provisions of the recent fruit pickers award for 7,000 employees, given by Judge O'Mara in the Arbitration Court.

The Secretary of the Union (Mr. D. Gunn) stated he had accompanied the Judge on a tour of inspection of certain orchards and a clause providing for better accommodation was expected.

H. M. LEGGO & CO.

A meeting of shareholders of H. M. Leggo & Co., fruit processors, will be held on January 31, when a scheme of capital reconstruction will be submitted.

New South Wales News and Notes

Murrumbidgee Irrigation Areas

Crop Prospects :: Cannery Operations :: Fig Pollination
:: Fruit Requirements for M.I.A. Residents :: Fire Fighting

(By Our Correspondent)

WEATHER CONDITIONS on the Murrumbidgee Areas has been exceptionally mild for this time of the year, and at nights the temperature has been almost cold, and the result has been a retarding of the Apricot ripening.

The Apricot crop

is a fairly good one, and with the cooler weather conditions, with a dry heat ranging during the day time, the shothole fungus did not make the ravages among the fruit that was at first expected.

The disease seems to have grown out with the sizing of the fruit, and some crops of exceptionally good quality and freedom from any adverse markings are noticed.

The canneries both in Leeton and Sydney are prepared to take large tonnages of fruit, and at a price in advance of last season, but it is anticipated that the **Peach** crop may be somewhat shorter than last year, owing to the severe losses among trees of this variety owing to the extremely wet weather conditions of the past Winter.

A new company

has been formed in Griffith under the name of the Griffith Fruit Preserving Coy., and a factory has been erected on a portion of the old foundations of the original factory site which was laid down some 18 or 20 years ago when the Mirrool area was first planted.

These large foundations, which have been lying idle for so many years must have represented a large expenditure of money, all of which has been wasted, but now it is understood that this new company, formed by Mr. C. De Mayda, is seriously going into business, and having acquired the old factory site, has erected a smaller building than the original elaborate plans allowed for, but it is fitted with the best modern appliances for handling jam making, pulping and the canning of fruit, and it should prove an acquisition to those growers who sometimes get their fruit rejected at the loading site, as being too ripe.

The company is to be congratulated on its enterprise, and carries the good wishes of all those who desire to see the district progress. The factory should be an outlet for many hundreds of tons of fruit which might at times go to waste owing to adverse weather conditions, but which can be processed as pulp and jam when the fruit could not in the ordinary

way be carried to either Leeton or Sydney.

This will be specially applicable to **Tomatoes**, and it is learned that if the company is as successful in its season's operations as is anticipated, then the premises will be enlarged, and the business extended.

Figs.

Already a few growers have a small pulping plant for the treating of their Fig crop, and the pulp which has been processed locally finds a ready market in Melbourne, and is highly commended.

A complaint was received from some jam factories in the past seasons, that the **White Adriatic Fig** had deteriorated for jam purposes, owing to becoming pollinated by the **Blastophagus Wasp**, which has been established on these areas for the purpose of pollinating the **Smyrna Figs**, and certainly the color of the pulp has deepened where such pollination occurred, but far from reducing the quality it was claimed by those growers of this variety that the seed content was increased and the pulp thereby improved, and so far, the writer is informed no objection has been made to the locally-made pulp, which in fact has been highly commended.

The **White Cape** variety of Fig which has been tried out on these Areas and which was at one time strongly advocated as a Fig of highly superior quality, has not proved a success here, probably on account of soil or climatic conditions, and those growers who planted this type have in some cases grubbed out the trees, and the selection of a suitable jam Fig has again swung back to the good old **White Genoa**, a Fig so largely planted in the early days of the Murray Settlements.

This Fig, although excellent for jam or preserving in syrup, has a tougher skin than the **White Adriatic**, and was therefore not a favourite as a drying Fig in the years gone by, but was superseded by the **Adriatic**, which in turn gave way to the far superior **Smyrna** or **Calimyrna** for drying purposes.

The **Smyrna** of course needs the pollination by means of the **Blastophagus Wasp**, and colonies of these were established on this area by the growers of this variety. From swarms which escaped and took refuge among adjacent groves of **Adriatic Figs**, it was noticed that the dried article produced in the succeeding season was greatly superior,

the seeds had hardened, and the color of the pulp was richer than before the advent of this wasp, and it appears only to be a prejudice that the fruit does not make as good a jam for appearance as formerly.

The general public are probably to some extent prejudiced in favor of a lighter colored article, but as most of the jam is placed in tins the color cannot be seen until opened, and if the article when opened proves to be of a superior quality, then it is very likely any slight bias in favor of color will be overlooked.

Peaches: This crop will probably be lighter than last season as stated previously, but the quality should be excellent.

Nectarines: Also generally good, but there is not a very large acreage of this type of fruit, most of which is sent to the fresh fruit market, and finds a ready sale at good prices. **Goldmine** is the principal variety grown with a few acres of **Mrs. (Dr.) Chisholm**, a fairly early variety.

Pears: This crop has filled out well, and there will be good crops of the three principal varieties grown, viz., **Williams**, **Packham** and **Josephine**, while the trees themselves appear to have generally stood up to the wet Winter conditions better than any other variety of tree.

There is still, however, a short supply of this type of fruit for the local cannery at Leeton, and the regulations have been amended to enable the supply of several hundred tons to be admitted to these areas from outside sources, under strict supervision.

M.I.A. Fruit Requirements.

The Murrumbidgee Areas have in past years been heavily safeguarded against the introduction of foreign fruits or tropical fruits, in order to protect the interests of producers, but opinions have been voiced from time to time that it would be better to admit such fruit as **Bananas**, **Cherries** and **Pineapples** rather than to have them surreptitiously introduced from outside areas, as is known to be the case, but which presents a very difficult problem for Inspectors to deal with.

After many years of prohibition on the Murray River Fruit Areas, all types of fruit are now admitted, and no serious outbreak of any pest or disease has resulted.

It is understood that this matter is being dealt with by the authorities with a view to moderating the present conditions which exist.

Glasshouses for Tomatoes.

A few fine glass-houses have been erected at both Leeton and Griffith, by enterprising growers who cater for an early season in **Tomatoes** and early **Cucumbers**, and having gone to the expense of trying to supply a small demand for such fruit by those who can afford to pay a high price for such an article, they are not anxious to see the ban lifted, but with outside fruit being supplied from early districts to such towns as **Whitton** and **Narandera**, which are so closely situated to the Area, and with prices varying between 5d. per lb. for Tomatoes in these outside areas to 1/6 locally, the position becomes a very difficult one to control, and is certainly needful of reconstruction.

Sultanas: This crop will be exceptionally light, and the vines have suffered severely from **Black Spot** and **Downy Mildew**: the **Sultana**, the most delicate of all vines, and apparently the most likely to be attacked by these two diseases, is not well suited to these Areas, and they are gradually being worked over to either table varieties or wine grapes. They apparently make a good stock to graft on to, and the **Reisling** or **Doradillo** show a good affinity with this stock.

Currants: A very small area of this variety now remains, but they are carrying fair crops, the main trouble generally occurs through a break in the weather during harvesting time, and many growers have eliminated this variety owing to the constant loss by splitting during wet weather.

Wine Grapes generally, are showing up well, and the growth is very rampant on many varieties. Damage by frost was severe in some parts of the area earlier in the season, **Muscats** being one of the worst hit.

The fear of bush fires which was forecast in my earlier notes, has unfortunately been realised, and several severe fires have occurred around the Areas, running through several thousand acres of standing crops and doing damage to the extent of several thousand pounds.

Last week a fire broke out on the property of Mr. J. Woodside, of "Boree Plains," in the Benerembah District, and sweeping through four other large holdings in this area caused great damage. 900 acres of the "Gum Creek" property was laid waste, fencing and 250 acres of pasture and a splendid 50-acre paddock of self-sown oats going in one fell swoop.

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Mr. Sellick is reported to have suffered very severely, and it is estimated that 1,500 acres of wheat land and grass country has been burnt out.

Mr. Coppard lost 100 acres of a particularly heavy crop of standing wheat just ready to strip.

So the Fire King takes his toll, and unless precautions are taken by the systematic burning off of firebreaks, further fires will undoubtedly occur.

The ready response of volunteer fire fighters was a pleasing feature in the distress caused, and for hours over 300 voluntary fighters battled to overcome the flames, which were accentuated by heavy winds prevailing.

The location of forest fires by aeroplane in America is a regular established practice, also the location of fire outposts on high points of vantage are to be seen all over the States, and during such a year as this probably many fires could be detected in the earlier stages by some such means, although in the present cases which are quoted, the fires occurred somewhat suddenly from the machine which was doing the harvesting.

N.S.W. FRUIT CROP PROSPECTS.

Apples and Pears Generally Light.

According to latest advices from the N.S.W. Department of Agriculture, show the estimated position regarding fruit crops thus:—

Goulburn District: Apples, moderate crop (Romes light). Pears light.

Bathurst: Apples and Pears patchy.

Orange: Apples — moderate crops of Granny Smith and Romes anticipated; Jon. and Del. light. Pears—P.T. medium to good, W.B.C. and B.B. moderate; others light.

Young: Apples and Pears light.

Murrumbidgee Irrigation Areas: Pears, fair to good. Prunes, medium at Yenda; D'Agens and Robes fair at Leeton.

Coastal Districts.

At Windsor early Apples and Pears, fair crops. Around Hawkesbury River, Allsop Apples medium, later varieties light. In the Parramatta-Camden area Apples and Pears are medium.

Bananas.

Medium supplies available at Lower Tweed during December. At Murwillumbah supplies are increasing. Around Lismore plantations made a splendid recovery; consignments increased towards the end of December. Crop position satisfactory around Ballina and Macksville.

Pineapples.

Good prospects at Lismore for the Summer crop. The crop was light at Ballina; excellent showing at Lower Tweed and Macksville for supplies from February onwards.

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APPLE AND PEAR ACQUISITION SCHEME.

Alternative Proposals by Orange Producers' Society, N.S.W., For Dealing Only With the Surplus.

WHILE CONVINCED that the Apple and Pear Board is actuated by the best motives, the Orange Producers' Rural Co-operative Society Ltd. (Orange, N.S.W.) believes that the present acquisition scheme is doomed to failure, and that a definite injustice is being done to growers under the proposals.

In a letter dated December 22 from the Orange Producers' Society to the Prime Minister, the following point out the reasons for their belief that the present proposals are inequitable

and unworkable, and continue, inter alia:—

In accordance with the instructions of the local growers a deputation from this district waited on the Minister for Commerce, Senator McLeay, and that gentleman received us very cordially and also arranged for us to meet Mr. J. B. Mills, the Chairman of the Apple and Pear Board, which body is being asked to run the acquisition scheme on behalf of the Government.

Mr. Mills has very kindly consented to put our scheme before the other members of the Board, but they will not be able to discuss it until the end of January and we feel that the present scheme will then have gone too far for our alternative, which we consider a better one, to have

a chance of being adopted, and this is our reason for approaching you direct.

When the Government scheme was first brought forward the estimated surplus of Apples was about 7 million cases and of Pears about one million cases. This surplus was, of course, brought about by an estimated heavy crop of 13 million cases of Apples and the inability of the fruitgrowers to get refrigerated shipping space for what was normally exported.

The position has now changed materially and the crop of Apples is now estimated at about 9 million cases. The Pears are about 200,000 cases over the normal consumption of the Australian market.

There is little need for me to point out to you what a huge task is in front of the Apple and Pear Board to satisfactorily handle 9 million cases of Apples and 2½ million cases Pears, from thousands of growers and distributors, who have, over a period of years, built up their own qualities and found many new markets in Australia and elsewhere. Candidly, we do not think they can fail to put the fruit industry into a chaotic condition.

It is, I think, the intention of the Board to agree to varietal pools, that is, for say Jonathans to be in one pool, Granny Smiths in another, and so on, so that the higher priced varieties in those pools shall not be called upon to help finance the lower priced pools.

Unfortunately, this does not overcome the difficulties as there are tremendous differences in prices realised for the same variety of Apples, of the same grade, according to the Government grading regulations. This is due to situation, rainfall, texture, keeping qualities, etc. The difference referred to can be best exemplified by stating that at the present time Orange district Delicious Apples are bringing for special lines 25/- per bushel case, whereas Victorian and Tasmanian Delicious would only bring 12/- to 14/-, and a few 15/-.

Our alternative scheme is for the Board to acquire only the surplus crop, over and above the normal requirements of the Australian market, and this surplus we estimate now at 3 million cases of Apples and a couple of hundred thousand Pears.

The Pears, we think, can be absorbed on the Australian market as more canning Pears will be required.

The Board would then have a simple and clear job ahead of it, that is, to deal with 3 million cases of Apples instead of 9 million Apples and 2½ million Pears.

The Board could look for export and could treat most of the surplus as canned Apples, Apple pulp, slice, fluff, Apple juice, etc., and thus have the Apples in a more suitable form to send overseas—or if not sold this year, could be held over to be unloaded on the market as it could be absorbed.

The grower would thus be left to market his crop on a normal market as he has always done in the past and the industry would not be interfered with.

The financial aspect is one that must appeal to you in times like this. I give it below as we see it.

The Government is evidently prepared to find over £2,000,000 as under:—

Government Scheme.

9,000,000 cases Apples	
1/6 at least, that	
is 2/- per case on	
75 per cent. estimated crop	675,000
2,500,000 cases Pears	
at 2/3 at least, that	
is 3/- per case on	
75 per cent. estimated crop	281,000
Administrative costs	75,000
*Advance of at least	
2/3 per case for case,	
packing, etc. Conservative estimate	
of 9,000,000 cases at	
2/3	1,012,500
	<hr/>
	£2,043,500

NEW SOUTH WALES.

The Coming Fruit Crops.

Fruit crop prospects are briefly set out in a recent report from the N.S.W. Department of Agriculture.

Fruit (Inland): In the Goulburn district the Apple crop is only moderate. Pears are light to medium; Howells poor. Apricots are heavy in some orchards, but very light in others; Plums, Peaches and Nectarines light.

Around Orange moderate crops of Granny Smith and Rome Beauty are expected, but Jonathan and Delicious are poor. Packhams Triumph (medium to good), Williams and Beurre Bosc (moderate) have the best prospects; others poor. Peaches and Nectarines have good prospects; Plums fair.

In the Young district Apples and Pears are light. Apart from Apricots, which generally are heavy, and individual good crops of Peaches and Narrabeen Plums, the prospects for stone fruits are for light yields. Prunes fairly satisfactory.

Bananas: In most districts crops are showing good growth.

Fruit is maturing rapidly at Murwillumbah; supplies are increasing.

Medium supplies are likely on the Lower Tweed during December; the fruit is filling well following the excellent rains during the past two months. Red Spider is appearing in many plantations.

Reports from Lismore disclose that Bananas are making a wonderful recovery after the adverse Winter and early Spring conditions.

Around Ballina, the quality of the fruit is improving, and good marketings are indicated.

Prospects are bright at Macksville for fair supplies of good quality fruit.

Pineapples: At Lismore there is a good setting for the Summer crop.

There are good prospects for the Summer crop at Macksville and Lower Tweed.

IT'S A MATTER OF LIFE AND DEATH!!

DEATH to your Orchard Pests and
—BETTER LIFE to You!

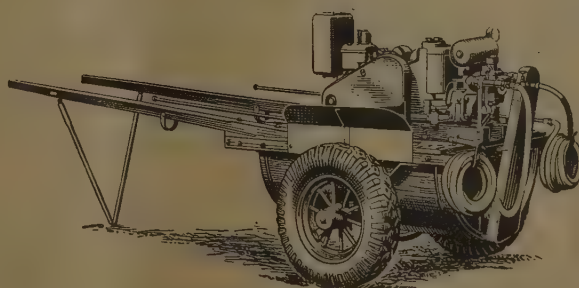
....When you install a modern, high-speed, high-pressure Ronaldson-Tippett Spray! Better spraying in half the time increases profits and reduces drudgery! Ronaldson-Tippett Spray Plants are easily the most popular in Australia because of the outstanding service they are giving. Working parts of both Engine and Pump run in a constant oil bath, ensuring lifelong wear with a minimum of duplicates. Buy the Right Machine First!

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RONALDSON-TIPPETT FRUIT SPRAY PLANTS

We realise that when sold before any is sold the above much of this money will be re-couped to the Government, but money has to be found. The 9 million cases at 2/3 is

assuming, say 7 million Apples and 2 million Pears are packed and marketed.

IMMEDIATE RESULTS AND CONTINUOUS ENQUIRIES FROM ADVERTISEMENT IN THE "FRUIT WORLD."

The following is an unsolicited testimonial from an advertiser in the "Fruit World":

"Dear Sir,

We first advertised our packing cases of Pinus Insignis in your paper in the issue of September last.

The advertisement in your paper was our one and only announcement of our entry into the trade. Immediate results were forthcoming, and we have had a continual flow of enquiries ever since it appeared. The value of advertising in your paper has certainly been proved to us.

We write this as we think it must be of interest to you to know the remarkable results we have experienced from only four insertions.

Yours faithfully,

(Signed) JOHN H. NEWMAND.

The Forestry Pulp & Paper Company of Australia Ltd., 440 Little Collins-street, Melbourne, C.I."

Under Our Scheme.

*The Government acquires only 3,000,000 cases at an average cost of say 2/6 per case	375,000
Administrative costs, say	40,000
	<hr/> £415,000

*The 2/6 per case allows for say 2/- of an average all round to be paid for the surplus, and about 6d. for delivery to depot, no packing being necessary if used for processing.

The 3 million cases referred to as a surplus would be those varieties which had over a period of years shown the grower the lowest nett return.

Much of this £375,000 would also be recouped to the Government.

As under our scheme the

grower would need no advance on say six million Apples and 2½ million Pears, the Government would be saved £1,628,000.

Surely our scheme is simple and inexpensive, and why persist in a scheme which is totally inequitable, unworkable and costly—the cost of administration having, of course, to be borne by the industry.

F. BRAND,
Manager.

A copy of this letter, signed by Mr. Geo. Hawke, Chairman of Directors, Orange Producers' Rural Co-operative Society Ltd., and F. Brand, Secretary, was sent to all fruitgrowing organisations in the Apple and Pear districts of Australia, requesting support for their proposals or the formulation of some similar scheme to deal only with the surplus.

Manures for Orchards

Suggested Seasonal Programme.

A MANURIAL PROGRAMME adopted by a number of growers over an extended period, and generally found satisfactory, is quoted by the Horticultural Division, Tasmanian Dept. of Agriculture, as follows:—

First Season — February-March: A green crop of horse beans, peas or lupins is sown on alternate lands (1, 3, 5, 7, etc.) throughout the orchard.

May-June: Where a lime deficiency exists the "missed" lands (2, 4, 6, 8) are treated with applications of lime ranging from 10 cwt. to 25 cwt. per acre, after autumn ploughing.

Second Season—August, September: Previous to ploughing under the green crop, the whole area receives a light dressing of potash, nitrogen and phosphates, the application being varied according to the considered variety requirements.

February-March: Sow green crop on rows 2, 4, 6, 8.

May-June: Apply lime, if necessary, to lands 1, 3, 5, 7, etc.

This programme is found suitable to most soils and conditions. The treatment of alternate lands, allowing every other one to be ploughed "to the trees" and giving a central furrow, permits surface drainage throughout the Winter.

In wet situations or under very rainy conditions the drainage provided materially assists the growth of the green crop.

"SCIENTIFIC HORTICULTURE."

Advice is to hand from the Horticultural Education Association, Wye, Kent, England, stating with regret that, owing to war-time difficulties, the publication of Scientific Horticulture, Vol. VIII., will be deferred indefinitely.

In the event of a decision to recommence publication before the cessation of hostilities a notice to this effect will be published.

Cables—Monro, London .

Codes—A.B.C. 5th Edition and Bentley's

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The Most Important Fruit-Distributing Organisation in the World.

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Other Branches: BIRMINGHAM, GLASGOW, WORTHING, SPALDING and HULL



Sales on Commission, by Private Treaty only.

Over sixty years' of Fruit Distribution.

We do not purchase.

Our Sale Rooms are the largest and most up-to-date in England; consignments are therefore displayed to the best advantage, consequently, our returns are the best.

We have specialised in the Sale of Australian Apples and Pears by expert salesmen for many years past, and we have the largest and best customers in Great Britain amongst our clients.

Bigger and better business is our objective.

We make advances to cover cost of freight, etc.

(Established 1862)

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South Australian News and Notes



INCLUDING OFFICIAL NOTES AND REPORTS FROM THE SOUTH AUSTRALIAN FRUITGROWERS' & MARKET GARDENERS' ASSOCIATION.

S.A. Fruitgrowers' and Market Gardeners' Association Incorp.

Meeting of Executive Committee

THE Executive Committee of the S.A. Fruitgrowers' and Market Gardeners' Association Incorp. met in the Board Room, 288a Rundle-street, Adelaide, on December 15, 1939.

Present: Messrs. H. N. Wicks (President), C. J. Pitt, F. P. Short, C. B. Robin, L. J. Wicks, J. B. Randell, J. Turner, W. J. Bishop, G. Jennings, H. B. Robinson, G. L. Wishart, G. T. Pitt, H. W. Parsons, C. Stanford, N. T. Hobbs, C. W. Giles, O. Esselbach, F. Hughes, W. H. Ind, G. H. Schultz, G. H. Sharpe, and the Secretary.

Apologies received from Messrs. S. M. James, R. A. Cramond and F. A. Wicks.

Correspondence: Letter from Mr. C. W. McRostie, Melbourne Market Representative, relative to early closing of fruit shops. Resolved that Mr. McRostie's action be endorsed, and that this Association express full support.

Letter from Fruit Sugar Concession Committee concerning the method of fixation of prices for the 1940 processing season. Received.

Acknowledgment of letter from the Metropolitan County Board relative to the use of secondhand bags (manure bags) for vegetables. Received.

Letter and Journal from the Swedish Chamber of Commerce, concerning direct trade of Apples and Pears with Sweden. Resolved that the letter be acknowledged with thanks, and the matter be deferred for the present owing to the existing position of the Apple and Pear industry.

Statements received from the Department of Agriculture showing Codling Moth Lure Records at Blackwood Experimental Orchard. Resolved that Mr. R. Fowler, of Government Experimental Orchard at Blackwood be invited to attend Executive meetings of the Association.

A letter from the Barossa Fruitgrowers' Association applying for that Association to form a Branch of the S.A. Fruit-

growers' and Market Gardeners' Association. Mr. W. J. Bishop moved: "That the Barossa Fruitgrowers' Association be received as a Branch of the Association, and be known as the Barossa Branch." Seconded F. Hughes.

The Chairman reported that he, the Secretary, and Messrs. W. J. Bishop, F. Hughes, and M. J. Vickers, had attended a meeting of growers in the Barossa District on November 24, 1939, at Nuriootpa, when it was resolved to form the Branch.

Messrs. G. L. Wishart (President), and C. B. Robin (Secretary) of the new Branch, were welcomed to the Executive by the Chairman, and Mr. Robin gave a brief report on the activities and plans of the new Branch.

Letter from Mr. R. Curnow, Montacute, suggesting that efforts should be made to exempt South Australia from the Federal Apple and Pear Acquisition.

Deferred until the Apple and Pear Report.

Sectional Reports.

Cherry Section: Mr. W. J. Bishop reported that the season was an unusual one. The weather conditions had been bad, resulting in some damage to the crop, and a break had occurred between the mid and late season varieties. However, hopes were for a satisfactory season.

Tomato Section: Mr. C. Stanford reported that the Tomato season was nearing completion, and had proved fairly satisfactory. Export figures were showing a substantial increase on last season.

Celery Section: Mr. N. T. Hobbs reported that the 1939 season had finished, and the Committee was holding its final meeting for the season on December 18.

Soft Fruit Section: Mr. F. Hughes reported that the season was now getting under way, and plans for export markets were being considered.

Potato Section: Mr. C. J. Pitt reported that the Potato crop was looking very well.

Apple and Pear Section: Mr. M. J. Vickers reported that the position on the local markets was sound. He also gave a brief resumé of the last meeting held by the Apple and Pear Board. It was also reported that Mr. F. Moore, of Victoria, addressed a meeting of Pear growers on Saturday, December 9, on the case presented to Canberra by Victorian growers requesting the exclusion of Pears from the Pool.

Mr. L. J. Wicks moved: "That this Association endorses the action of Pear growers in appealing for Pears to be excluded from the Federal acquisition, and support be given the case for exclusion already presented at Canberra." Seconded Mr. J. Turner. Carried.

Resolved that the Secretary reply to Mr. Curnow's letter stating that every opportunity will be taken by the Association for the benefit of Apple and Pear growers.

Society: Mr. W. J. Bishop reported that Mr. L. E. Cowley had been appointed as Manager of the Fruitgrowers' and Market Gardeners' Society Ltd.

The President, in closing the meeting, extended to all the compliments of the season.

CELERY COMMITTEE FOR THE 1940 SEASON.

The constitution of the Celery Section necessitates that five members of the Committee shall retire annually, and this year Messrs. M. Packer, W. Packer, A. R. Martin, C. Ridley, and N. T. Hobbs were the retiring members.

Nominations for the vacancies closed on November 24 last, and as only nominations for the five retiring members were received, they were declared re-elected.

Thus the Committee for the 1940 season will be as follows:—Messrs. M. Packer, W. Packer, G. J. Strange, C. Ridley, W. Farnham, N. T. Hobbs, A. Floyd, V. W. C. Schulze, A. R. Martin, A. J. Hollister.

At a meeting of the Committee held December 18, Mr. M. Packer was again appointed Chairman of the Section.

Preliminary arrangements for next season were also put in hand at the meeting.

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TORRENS VALLEY PUBLIC SCHOOL'S EXHIBITION.

Apple Packing Competition.

The S. Aust. Fruitgrowers' and Market Gardeners' Association Incorp. again this year presented a Cup to the winner of the Apple Packing Competition at the Torrens Valley Public Schools Exhibition held recently.

The winner was Cora Redden, of the Millsbrook School, who gained a very excellent 92 per cent., and Mr. C. J. Pitt, Vice-President of the Association, made the presentation.

The Jennings Shield presented in 1932 by Mr. G. Jennings, then President of the Association, for annual competition, was again won this year by the Millswood School.

COLD STORAGE FIGURES.

The Department of Agriculture advise that the figures of fruit held in cold store in South Australia as at 30/11/39 were as follows:—

	Cases.
Apples	11,298
Pears	21
Total	11,319

INSURANCE

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Recommend that Growers avail themselves of Insurance benefits with

GENERAL ACCIDENT FIRE AND LIFE ASSURANCE CORPORATION LTD.

Assets Exceed .. £19,000,000
Claims Paid .. 85,000,000
Definitely Concessions offered to Shareholders.

A. STUART, Secretary.
F. & M.G. Society Ltd.

Fruit Trees & Fruit Tree Stocks

Splendid Stock of Healthy Plants Available.

APPLES, PEACHES, PEARS, PLUMS, APRICOTS,
CITRUS, ETC., PACKED AND DESPATCHED
TO ALL PARTS OF THE WORLD.

Overseas Orders receive careful and prompt attention.

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A two-horse power engine is necessary to drive this pump, and its output is sufficient to supply eight standard fine nozzles at 300 lbs. pressure. This Sprayer is modelled on exactly similar lines to our famous hand model so well known now, but of course is very much larger in every respect.

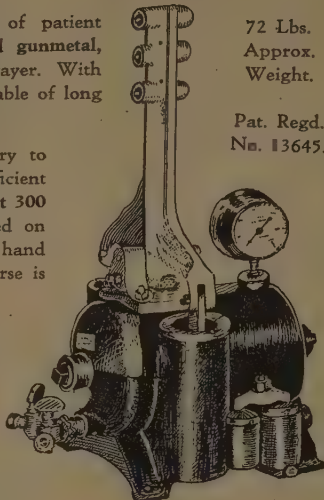
Supplied as shown with Pressure Gauge, By-pass Valve, and Double Discharge Cock.

The drive, as you can see, can be adapted to almost any gear stroke.

THE IDEAL UNIT FOR
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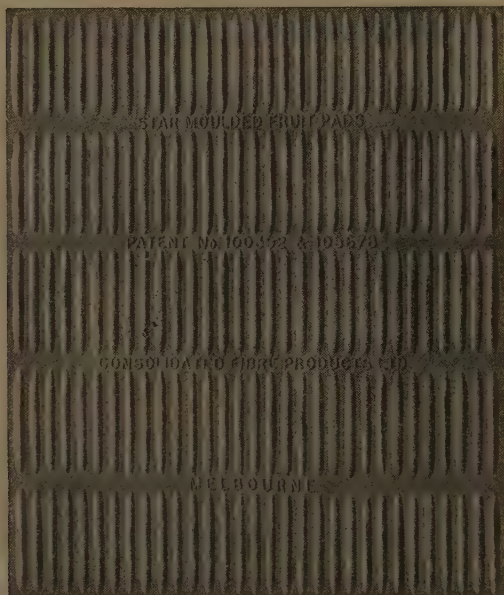
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Better Packing — Bigger Profits

Use—

"Star" MOULDED FRUIT PADS

(Patent)



Moulded corrugated pads are the greatest advance ever made in fruit packing. They are resilient, odourless, moisture-proof. They act as a cushion and give better air circulation thus preventing damage to the fruit whilst in transit or in Cool Store.

SIZES:—12 x 6, 13½ x 6, 12 x 14, 17½ x 8, 17½ x 11.

"STAR" MOULDED FRUIT PADS are made in light grey or royal blue. These colours are fast dyes and will not taint the fruit.

PRICE LISTS UPON APPLICATION.

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CONSOLIDATED FIBRE PRODUCTS LIMITED

321 William Street, Melbourne, C.1.

The South Australian Fruit Marketing Association Inc.

Executive Committee

THE monthly meeting of the Executive Committee of the S.A.F.M.A. was held at Adelaide on December 15, 1939.

Present: Messrs. R. G. Hannaford, H. N. Wicks, W. F. E. Smith, R. H. A. Lewis, P. R. B. Searcy, G. S. Queale, D. Norsworthy, A. R. Willsmore, S. M. James, F. Rowley, J. H. Dunning, E. Leishman, M. J. Vickers, F. F. Redden, L. G. Heading, R. O. Knappstetin, J. B. Randell, H. M. Charlick, F. B. James, L. J. Bishop, C. A. Stewien, A. O. Petersen, and the Secretary.

The President, Mr. J. B. Randell, occupied the chair.

Correspondence.

Letter dated December 7, from the O.S.R.A., asking for revised forecasts in view of the reports of the reduction in the Apple crop as compared with earlier anticipation.

This matter was carefully considered, and it was finally agreed, as the result of reports received, that a reasonable forecast for the season would be:—

Apples.

	Cases.
Feb.	60,000
Mch.	160,000
Apr.	80,000
Total	300,000

Pears.

Feb. (last half)	5,000
Mch.	20,000
Apr. (early)	10,000
Total	35,000

The Secretary was instructed to advise the O.S.R.A. accordingly.

Apples for Schools.

Replies were received from: Prince Alfred College, St. Peters College, Scotch College, Methodist Ladies College, Presbyterian Girls' College.

It was resolved: "That these letters be referred to the State Apple and Pear Acquisition Committee for attention."

New Members.

Applications for membership were received from Messrs. R. P. Dunstan (Watervale), H. J. Hooper (Kersbrook), C. Fox (Cudlee Creek), H. D. Howie (Renmark), E. M. Mewett (Kersbrook), C. E. Neale (Hermitage), W. H. Stewien (Verdun), C. E. Stephens (Eden Valley).

It was resolved that the applications be approved and that the names be entered in the Register of Members.

Annual General Meeting.

Letter dated November 27 was received from Senator G. McLeay, advising that on present indications he expected to be able to attend the annual general meeting on Friday, January 19, 1940.

It was resolved that the meeting be held at the "Stadium,"

Grenfell-street, Adelaide, commencing at 2.30 p.m. and to be preceded by the ordinary monthly meeting of the Executive Committee, which would commence at 1.30 p.m. The programme of the annual general meeting would follow the same lines as in past years.

It was agreed that the Premier, as Patron of the Association, be asked to open the meeting.

Australian Apple and Pear Board.

The representatives on the Board, Messrs. Searcy and Vickers, reported on the proceedings at the recent meeting of the Board.

Mr. Searcy dealing with matters dealt with at the full meeting of the Board and Mr. Vickers reported on the Committee meeting.

A number of questions were put to the Board members on different points, and members were particularly concerned with the possibility of growers being prevented from selling their own fruit off wagons, and on the motion of Mr. Searcy, it was resolved:—

"That a sub-committee be appointed to draw up a scheme suitable for South Australia which would prevent interference with the present methods of distribution. The scheme to be submitted to the State Committee in due course."

The following Committee was appointed: Messrs. S. M. James, F. F. Redden, G. S. Queale, L. G. Heading, W. F. E. Smith, J. B. Randell, A. O. Petersen.

Pears.

Mr. F. B. James submitted a motion that a telegram should be sent to the Premier supporting the case presented by some of the other States for the exclusion of Pears from the Apple and Pear Acquisition Scheme.

This was seconded by Mr. W. F. E. Smith, and caused considerable discussion and eventually, on being put to the meeting, the motion was lost.

Apple Export.

Mr. G. S. Queale moved, and Mr. F. F. Redden seconded the following resolution:—

"That this meeting of members of the South Australian Fruit Marketing Association views with alarm the suggestion that there will be no export of fruit from South Australia, and asks the South Australian representatives to use every possible endeavour to obtain a share for South Australia of any export space available. This was carried.

Press Publicity.

Mr. L. J. Bishop expressed the opinion that press publicity should be given to the possibility that under the acquisition of the Apple and Pear crop by the Commonwealth Government, existing distribution channels might be disrupted and also the

SOUTH AUSTRALIA (Continued)

Local Marketing of Fruit

GROW VARIETIES SUITED TO SPECIFIC DISTRICTS — IMPORTANCE OF RED JONATHANS AND RED DELICIOUS — HIGH QUALITY FRUIT AND STANDARDISED PACKS ESSENTIAL — RELIABILITY OF PACKS FOR LOCAL SALE AND FACTORY USE.

(By H. Goldsack, Blackwood, South Australia.)

THE LOCAL MARKETING of fruit can be dealt with under 3 headings — (1) growing the right fruit for the local market, (2) packing the fruit correctly, and (3) selling the fruit. (So stated Mr. H. Goldsack at the recent Hills Branches Conference of the S. Aust. Bureau of Agric., as reported in the "S.A. Jour. Agric.")

Growing the Fruit.

This aspect, continued Mr. Goldsack, has been drilled into growers at nearly every Bureau meeting, and rightly so. It may be taken as an axiom that **the better the fruit can be grown the better the fruit will pay.** This lies at the root of all discussions on pest control and cultural practices. This includes growing the right fruit—that is, fruit most suited to the grower's district and also most suited to the local market. Far too often varieties are grown which are popular without considering their suitability to districts.

The **Jonathan** may be taken as the standard first-class dessert Apple for the Adelaide market. Taken as a whole, the Blackwood district is not suited to this Apple, or rather, the Apple is not suited to the district, because it does not develop a good color. The remedy which might be suggested is to grow an early coloring form of this Apple—namely the **Red Jonathan**. This Apple would enable growers to exploit the local advantages for early maturity, and of the Apple for popularity. The same may be applied to other colored Apples. If growers of the Blackwood district wish to compete successfully with growers from colder districts in the color of their Apples, they will have to make full use of color varieties such as **Red Jonathan**, **Red Delicious**, etc. The added color in these would probably mean added profits. Of course, there are those varieties which in their

natural forms do so well at Blackwood. **Cleopatra**, **Dunn's**, and **Granny Smith** all do exceedingly well in this district, and no grower there should neglect them.

However, every grower must find out those varieties which do well in his district and then try to grow them better than any other grower in his district. Only thus will he get that quality which sells fruit.

Stone Fruits.

Here again must be kept in mind the question of suitability of variety. Fruit at Blackwood ripens between the fruit grown on the Adelaide Plains and that from the colder and higher districts. With **Peaches** and **Nectarines** best prices are received at the end of the season, because, although the Plains **Peaches** catch the early market, very few districts can grow **Peaches** satisfactorily after us. So that in the Hills it would be as well for a grower to have fairly large plantings of the late varieties.

The Plains gardener grows a considerable number of very early varieties of dessert **Plums**, and then leaves the rest of the season to the Hills growers. Consequently, in all but the very early and very late kinds, we are in a good position for marketing. The Hills grow **Plums** better than the Plains, and as each variety ripens we precede the cold districts by a week or two, and so gain a tremendous advantage in marketing.

With **Apricots**, the ideal would be a late variety, but, owing to the lack of suitable sorts, we have to be content with the **Moorpark**, and here we are at a disadvantage in being later than the Plains, but not late enough to reap much benefit from the rise in prices at the end of the **Apricot** season.

It might be noted that, while for export trade a minimum number of varieties seems desirable, for local needs the number can be much greater, both to secure a long ripening period in which to market the fruit, and also to cater for the varying tastes of the purchasing public. But, first and last, grow good fruit.

Packing the Fruit.

It should be obvious that good fruit deserves to be packed attractively. Attractive packing will not turn poor fruit into good fruit, but it will definitely help to sell it. First see to the package, whether it be a bushel or half-bushel case. Make sure that all the slats are secure and that the ends of the case will not split as soon as the fruit is put in it. Then line the case neatly with paper; clean white paper for preference. If selling a really first-class line and hoping to get top price, then line the ends of the case as well as the sides. The buyer appreciates the extra care, and the consumer gets his fruit without those case rubs, which are too frequent.

For all dessert fruits which are sold by count it is necessary to pack the fruit. Not only does the buyer know the number of fruits he is getting, but the fruit itself will carry better if packed. Packing presupposes grading, which should be for size and quality. **Nothing will bring about strained relationships between buyer and seller more quickly than the sale of good fruit with which is mixed poor fruit.** The same applies to size. Grade the fruits to definite sizes and keep them at that. Far better to throw away small fruit than to mix it with bigger fruit and then endeavour to sell the mixed sample as first grade. The best solution, of course, lies in the orchard, not in the packing shed. Endeavour to eliminate the small and poor fruits while they are on the trees by improved cultural methods and by thinning, if necessary.

Wrapping fruit seems to be a debatable point. For any but the best grades it would seem uneconomical, but for customers who want the best and are willing to pay for it, wrapping pays. **Remember, a little good fruit pays better than a lot of bad fruit,** and the highest priced lines are usually the most profitable ones. Every grower should at least try some lines wrapped. He may find the venture well worth while.

Time will not allow of more than a mere mention of the possibility of using attractive

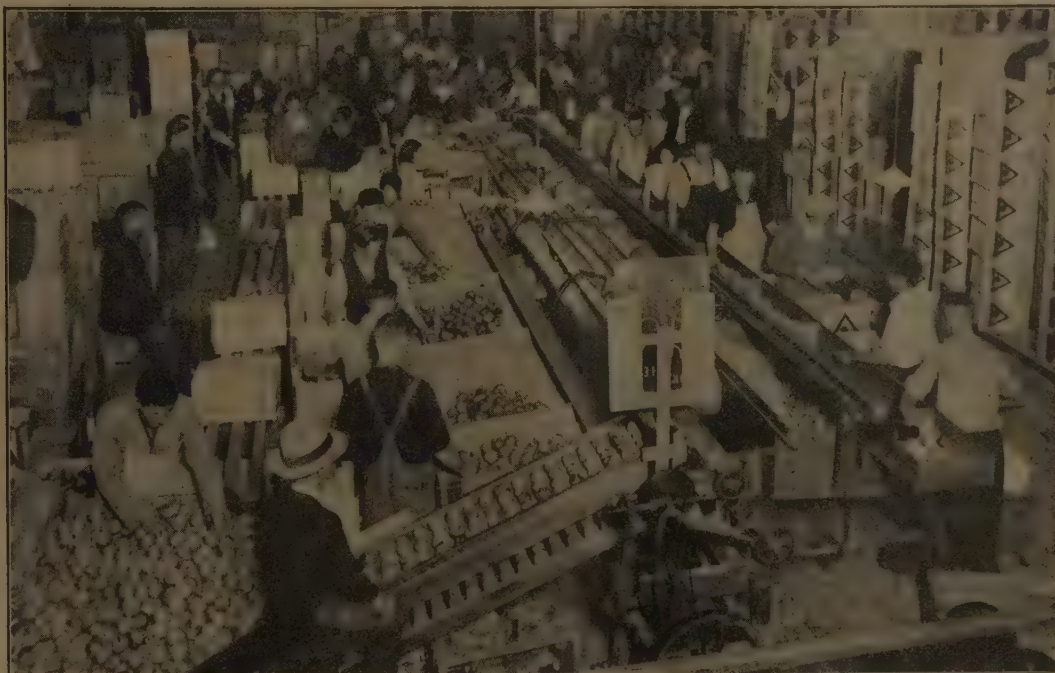
S.A.F.M.A.—(Contd. from page 14).

urgent necessity of this State receiving an allocation of any available export space to enable it to maintain connections and goodwill with buyers overseas.

After discussion it was agreed to ask the press to give publicity to these matters.

Research Sub-Committee.

At the meeting of the Research Sub-Committee a general discussion took place in regard to **Codling Moth Control**.



A BUSY SCENE IN AN APPLE PACKING SHED.

cartons or ready packed fruit as a means of attracting more custom.

A further point which might be mentioned is that of the weight of the contents of packages in those cases where the fruit is sold by weight. For instance, if a greengrocer or packer reckons that a half a case of Figs holds 24 lb., see that he gets that weight of fruit. You will never lose by putting in a pound or two extra; but you will soon lose customers by being continually underweight.

The

Cold Storage of Soft Fruits

is a recent phase of marketing which has not yet left the experimental stage. As a means for avoiding gluts and for lengthening the marketing period of many fruits it has great possibilities, and there is no doubt that the experiments being

carried out at the present time to determine the optimum conditions for storage of various soft fruits will be of inestimable value to the fruitgrower.

If the previous suggestions have been carried out, the fruit may be said to sell itself. There is very seldom a glut of first quality fruit, and very seldom any difficulty in disposing of it.

Marketing Hints.

Still, for maximum profits the grower must see that his fruit is sold through the right channels. By this is meant either through the retailers (greengrocers), the wholesalers (packers), or to the factory for jam pulp or canning purposes. The price, and thence the profit to a certain extent, will drop as we go from retailer to wholesaler to factory, but with large plantings of any variety the grower will find that he has to rely on the latter two in order to dispose of the quantity of fruit he has.

Just as much care should be taken over the quality of the fruit sent to the factory as that sold to the retailer. If the quality of the fruit is bad the retailer will cut you out next market, the factory next year. But give the factory good fruit, go out of your way to give the manager a few extra cases of fruit he is wanting, whether it is canning Peaches or Figs, and probably he will take some line you are having difficulty in selling, perhaps Quinces, or even Plums. Endeavour to give the customer what he wants, whether he is greengrocer, packer, or factory. Service with courtesy pays in gardening as much as in any other business.

Successful marketing of fruit locally calls for the right varieties of fruit, which must be well grown, attractively and honestly packed, and for a continued endeavour on the part of the grower to give the buyer what he wants.

Lime and its Uses

LIME IS OBTAINABLE in several forms, known generally as burnt or quicklime, slaked lime, and carbonate of lime or limestone.

Burnt lime is obtained by burning limestone, sea shells, chalk or other substances rich in calcium carbonate. When freshly burnt it is composed of hard whitish-grey lumps which are caustic to handle and which break down into a powder or "slake" on the addition of water (states the Extension Service of the Tasmanian Dept. of Agriculture).

Slaked lime results from the union of water with burnt lime. The resultant material is a whitish-grey powder which is distinctly caustic.

Limestone — chemically, calcium carbonate—is the form in which lime occurs in nature. Limestones vary considerably in composition and nature. Some are soft and chalky, and hence are readily reduced to a fine form, but others are comparatively hard and hence are expensive to grind. Various chemical impurities may be found, but the value of the limestone is not materially affected if they occur in small quantities (3 to 5 per cent.).

When quicklime, slaked lime and limestone are all obtainable, the question arises which will be the best to purchase at the price offered? Assuming the various forms to be of equal purity, for general purposes, 56 lbs. of burnt lime is the equivalent of 74 lbs. of slaked lime, and 100 lbs. of limestone. Hence, when freight and haulage are of little consideration, the burnt lime should not be purchased if it exceeds by much more than twice the price of limestone. The essential points in the purchase of limestone are the purity of composition and the degree of fineness.

On heavy land ground burnt lime, or slaked lime, is to be preferred, while they are not as desirable or safe for light sandy and gravelly loams as is ground limestone. The latter soils have a low organic matter content and the effect of burnt or slaked lime is to make them poorer in organic matter.

The various forms of lime in the ground state have the advantage that they can be cheaply and effectively applied by the use of various types of spreading machinery.

The use of burnt lime on pasture is not recommended. It should only be applied in the Autumn and Winter on the fallow.

Frequent and small dressings of lime are more beneficial than infrequent heavier dressings.

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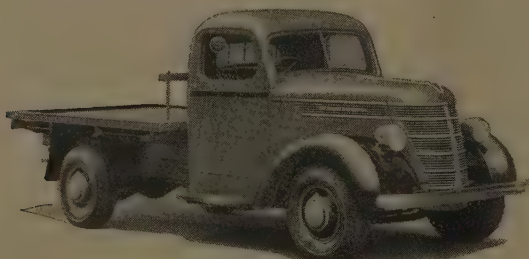
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SOUTH AUSTRALIA

(Continued)

Mid-Murray Notes

Irrigation and Drainage Problems :: Black Spot Control :: Research Activities :: Soil Erosion ::
Grape Maturity Studies :: Substitute Needed for Carbonate of Potash for Dipping Sultanas ::
Mr. Malloch's Impressions of Canada and California.

(By Our Correspondent)

Renmark (S.A.), 20/12/39.

THE THIRD IRRIGATION has just been completed and the fourth will commence on the day after Christmas. This will work in very well with the seasonal weather.

In all of our experience with heat spells, it is realised that the most severe have visited us between Christmas and the second week in January, and this is a period which has to be guarded against and to provide that the land is sufficiently supplied with soil moisture so that the vines will not suffer.

It is not always easy to do this in a community system of irrigation, but as the last irrigation has just been finished and the next will follow directly after Christmas, the water requirements should satisfy everyone concerned. Irrigation of the land does not mean just allowing the water to run on and off in a haphazard manner, but requires special care to adapt each method of applying water to suit the particular type of land to be irrigated. To irrigate with just the right amount of water and no more requires years of observation and study, and a failure to carry out the principles of giving the land no more water than the plants can absorb has been the cause of a great deal of land becoming waterlogged and going out of cultivation and has necessitated drainage schemes to be installed.

In spite of the fact that the C.S. and I.R. officers both at Griffith and Merbein have made an intensive study of irrigation and their findings have been published, the art of irrigation has still to find practical application by the rank and file of growers.

It is not unusual for growers to neglect the proper supervision of water, particularly during the night time, and inadvertently allow more to come down than is necessary.

If this practice is followed, one irrigation after another and one year after another it can easily be understood how the sub-soil water is accumulated, and when it has accumulated sufficiently to bring up the saline matter in the soil, then the vines begin to show signs of distress and it will not be long before they "go out" altogether.

Certain types of soil may require as long as 24 or even 48 hours to irrigate, but these are exceptions.

From the irrigation studies carried out by Mr. A. V. Lyon,

M.Ag.Sc., of the Merbein Research Station, it will be seen that the majority of soils in the irrigation areas are over irrigated. In most cases from 4 to 6 hours had given enough soakage to penetrate the whole of the root zone of the vine, and any period beyond this time only means piling up superfluous water in the soil. The run off and soil type of each block is a separate problem which can only be tackled by the individual owner, but if we are to get the best results, a more careful study will need to be made so as to make a practical application of the findings of our Scientific Research Officers.

The late Brailsford Robertson once said that it takes ten years before the primary producer applies scientific discoveries, and it is very true regarding irrigation.

In the Barmera irrigation area it was commonly believed by many growers that a natural drainage permitted an almost unlimited application of water, but after many years it was found that the surplus water "piled up" from far and near to form a real lake, which became known as lake Winterfield, and a good deal of land went out of cultivation. As the matter assumed serious proportions, the need for drainage

became apparent and by the good offices of the State Departmental Officials and the C.S. and I.R., a series of observation holes were put down with a view to the possibility of draining into Lake Bonny. A main drain was subsequently put down, extending for several miles, and what was once known as Lake Winterfield is now quite dry, and all along both sides of the drain land has been reclaimed which had gone out of cultivation.

It is not yet known to what extent internal drainage will be necessary as the main drain runs through a series of limestone formations, and the lateral "pull" of the main drain appears to be considerable.

Reclaiming land which has been rendered useless through the accumulation of injurious salts from seepage requires a good deal of nursing.

If the land has not gone too far it can be reclaimed by flooding the salts down and planting lucerne.

Lucerne is a fairly salt-tolerant plant.

In the event of Lucerne not being possible, Barley can be

tried, as this plant will stand quite a large amount of salts. The weed known as Fat Hen beats them all, and will grow where no other plant can survive. Having obtained a good stand of any cereal plant or weed growth this is ploughed under to build up the organic matter in the soil so that bacterial activity will again commence. A soil becomes dead when waterlogged or possesses a large quantity of injurious salts, but once the bacteria have been allowed to multiply the land regains life and is fit to plant up with vines. Of all our vines, the Gordo is the least salt tolerant, and there seems little to choose between the Currant and Sultana in salt toleration, but the Grenache seems to grow in places unsuited to any of the drying varieties.

Black Spot is still making headway after each shower of rain, but is chiefly to be found on young shoots close to the crown of the vine or those trailing the ground.

In some instances the fruit has been "spotted," but this is not general, and on the whole there has been little loss up to the present, but should we get occasional showers from now on there is no doubt that a good many spores will again become active and attack the fruit.

The Sultana rods for next year's crop have developed sufficiently to withstand an attack, and it is not likely that they will be pitted. The spores harbor in the pitted portion of the cane and in the spotted leaves, and as these will all be removed at next pruning time the canes on the vine itself will be free and clean. There will, however, be enough Winter spores to start a first-class epidemic next Spring, given favorable conditions. Winter spraying with sulphuric acid at a strength of a ten per cent. solution, or a combination of acid and sulphate of iron, is the only means of killing the Winter spores, and even without any additional activity of Summer spores the position will have to be kept in mind and Winter treatment given.

The Merbein Research Station possesses what is known as an "Advisory Council." This Council comprises a body of practical growers representing the irrigation areas in the States of South Australia, Victoria, and New South Wales.

Twice a year the Advisory Council meet at Merbein to be-

come acquainted with the progress of research work being carried out at the Station, or to suggest and debate problems which arise from time to time. In this way there is a direct connection between the research officers and the practical man which enables him to communicate to his fellow growers the latest developments in research work affecting the dried fruits industry.

Research Activities.

In giving his half-yearly report, Mr. A. V. Lyon, M.Ag.Sc., said that although the work of the Station might be impeded owing to the disastrous conflict overseas, the main part of the work will continue, and they will carry on to the best of their ability. The pre-harvest maturation studies would again be in progress this year. The proposed visit from members of the Griffith Research Station had had to be postponed, likewise a visit to the Waite Research Institute in Adelaide. These would be made when conditions again became normal. Approval had been obtained from head office for the reconstruction of the old vineyard.

Owing to the seriousness of soil erosion in the water shed of the Murray, Soil Erosion Committees had been formed in Victoria and N.S.W. for the purpose of safeguarding the catchment areas from further damage through overstocking, clearing, etc.

Commissioner Hanslow had worked untiringly on this subject and has aroused the interest of the Commonwealth Government and the States of Victoria and N.S.W., and appropriate action was now being taken.

Important studies were being carried out by Mr. Orton, on the dipping of Sultanas.

Mr. Dickson is engaged on the movement of nitrates in the vine structure.

Mr. Tisdall is continuing his work on drainage, and Mr. Walter, amongst other work, is busy with fertiliser trials. Mr. Lyon considered that his staff of young scientists were as good as

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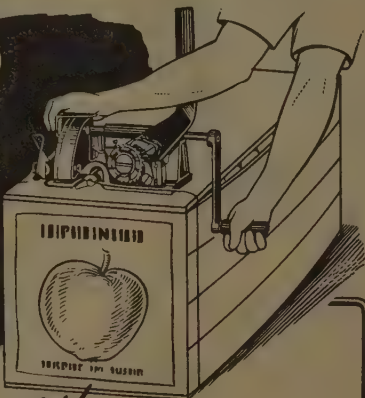
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MID-MURRAY NOTES—(Continued)

could be found anywhere in Australia.

The

Maturity Studies

mentioned previously were being carried out by Mr. Lyon and will have a far-reaching effect in the industry, for they will determine the correct state of maturity of the Grape prior to picking.

Last year's studies led to the advice to pick at a certain date because the fruit had attained its maximum maturity, although the Baumé was not high. Those who followed this advice harvested high quality dried fruit, whereas those who delayed and waited for a higher Baumé were caught by rain and harvested only low grade fruit.

Owing to the importance of accurately determining the state of maturity of the fruit by scientific means, the growers all along the River are eagerly awaiting a pronouncement from Mr. Lyon on the development of this year's fruit.

Arrangements have been made for Mr. Lyon to address meetings of growers in the various irrigation areas prior to harvest.

The Dipping of Sultanas.

Another matter which has received attention by Mr. Orton is to find a substitute for carbonate of potash, which is used extensively in dipping Sultanas. As far as the investigations have gone no direct substitute has been found, but for the purpose of making the best use of the potash available the addition of, I think, soda ash, was found satisfactory. There being no carbonate of potash available anywhere in the world excepting Germany, it is impossible to obtain further supplies until the war ceases. There will be enough carbonate of potash for this year's requirements, and if a satisfactory dilution can be made stocks may last over the 1941 harvest; in the meantime, however, Mr. Orton is turning his activities towards finding a suitable substitute.

Olive oil is greatly used also in the drying of our Sultanas where the cold potash dip is used, but it has been found that Cotton Seed oil and Peanut oil can be used with equal success. As these two commodities are produced in large enough quantities in Australia to make us independent of importations of Olive oil, the oil factor produces no problem.

It would be a retrograde step to be obliged to fall back on the plain caustic soda dip, but if supplies of carbonate of potash work out, and no substitute can be found, it may be necessary.

The following recommendations have been received from the Mildura Packers' Association, who have followed Mr. Orton's dipping experiments closely:—

(1) There is no single substance which can replace carbonate of potash completely in the cold dip with equally satisfactory results.

(2) Where cold dip is used 2½ Baumé potash, this, can be obtained with a strength of 1 lb. potash to 4 gals. water, with the addition of a wetting agent at the rate of 1 to 2 pints per 50 gals., in order to economise in potash.

(3) Further economies may be secured by using 1 part soda ash to 2 parts potash in the cold dip at 2½ Baumé, with wetter as above. In cold dips containing caustic soda, the caustic soda and carbonate of potash should be used in equal parts at 2 to 2½ Baumé (4½ to 6 lbs. of each per 50 gals.). Wetter must be used. Fruit from this dip is a little browner, slightly slower drying, but requires less bleaching, and is economical.

(5) Spraying should be limited to fruit which has become wet by rain.

(6) With careful removal of sediment a cold dip can normally be used throughout the season. If reasonably free from sugar a dip may be retained at the end of the season and used as stock the following year. It is necessary to discard any floating oil or fat and sediment.

(7) For Lexias and Walthams modified temperature caustic soda dip is recommended.

(8) Further experiments, in regard to possible substitutes for potash, will be undertaken in the coming season.

:: :: ::

AT THE ANNUAL MEETING of the Renmark Branch of the Australian Dried Fruits Association, the main speaker of the evening was Mr. Peter Malloch, who reviewed the export markets of the world as seen by him in a recent trip abroad. Mr. Malloch spent more time in Canada and California than in Great Britain, where his visit was cut short owing to the European situation, and his remarks were chiefly confined to events in those two countries. Mr. Malloch spoke in great praise of the Canadian for his unbounded hospitality to himself, his wife, and daughter, who accompanied him on the trip.

The Sultanas from Australia arrived in perfect condition, and the Canadian appreciated our terms of trading established by the Export Control Board and our system of inspection. It may be stated here that all of our dried fruit shipped overseas carries a certificate of Government guarantee that the fruit is up to the standard set out on the box, and on that guarantee, trade in dried vine fruits has increased to such an extent as to now constitute a very valuable market.

Wherever he went in Canada Mr. Malloch heard nothing but praise for the Australian dried fruits imported into that country, and stability has followed a guaranteed product at a guaranteed price. When Mr. Malloch

Fruit Crop Prospects in South Australia

Apples, Lightest Crop for Several Years :: Estimated at 700,000 to 750,000 Bushels :: Pears About 230,000 Bushels :: Apricots and Peaches, Average Crops.

Compiled by E. Leishman, Department of Agriculture, Adelaide.

Apples: In the majority of orchards throughout the State the blossoming was heavy, and being the recognised "on" year, a record crop of fruit was expected. This was not realised, as the setting was considerably below expectations, and the crop promises to be the lightest crop for several years. Factors which appear to have contributed to the non-setting are: late Spring frosts, thrips damage, and reaction to the severe climatic condition of last Summer.

Amongst the principal varieties grown, the Cleopatra will contribute the bulk of the Apple crop ranging from light to good. Jonathan, patchy, light to medium; Dunn's, patchy, light; Rome Beauty, very light; Stone Pippin, light; Buncombe, very light; Granny Smith, patchy, light to medium; Democrat, light; London Pippin, very light; Rokewood and Statesman, light to very good; Delicious, negligible.

Taking the statistical mean of the previous five years, which is quoted as 933,000, and allowing for Apples being larger than usual, due to the beneficial rains, the present indication for 1940 is estimated at approximately 700,000—750,000 bushels.

Pears: In the Mount Lofty Ranges, the variety, Williams Bon Chretien, is patchy, showing from light to good crops, and in the irrigation area of the Murray Valley, although patchy, promises normal crops.

Other varieties as Beurre Bosc, Josephine de Malines, Packham's Triumph, Howell, etc., range from fair to good.

Production of Pears for the State should be in the vicinity of a normal crop, viz.: 230,000 bushels.

Apricots: Considerable losses were caused by late frosts in individual orchards in the Barossa Valley. In the Adelaide Plains and irrigation areas on the Murray Valley, the crops range from fair to good. It is expected that the crop will be up to average.

Peaches and Nectarines: Canning Peaches in the Barossa Valley were severely affected through late frosts. In the Adelaide Plains, Peaches promise fair average crops. In the irrigation areas, Murray Valley, normal crops are in sight. Nectarines generally are patchy, ranging from light to medium.

Cherries: This crop is grown commercially only in a few selected portions of the Mount Lofty Ranges.

Early and mid season varieties vary from light to good. Late varieties are patchy, ranging from very light to fair. It is anticipated that a normal crop will be harvested.

Plums and Prunes: Prunes are generally light. Plums throughout the Mount Lofty Ranges promise fair to heavy crops.

Berry Fruits: In the Hills district where berry fruits are grown, Gooseberries are giving good returns; Raspberries and Loganberries promise good crops. Strawberries are patchy, and vary from light to fair.

Almonds: Almond trees look exceptionally well, making good growth, and in the southern district are carrying a good average crop.

In the Murray areas, fair to good crops are showing, whilst on the Adelaide Plains, where the main bulk of the State crop is grown, returns of 15 per cent. above average are expected.

Citrus: The citrus trees have flowered well, although it is too early to estimate the crop. However, present indications are for good average crops.

Grapes: Late Spring frosts caused considerable damage to vines in parts of the Barossa Valley, and the irrigated areas of the Murray River. The remaining districts in which vines were not affected by frost are showing a fine display of fruit bunches.

Currants: Despite the frosted areas in Renmark, Berri, and Barmera district, present indications point to 80-90 per cent. of a normal crop.

Other River districts are showing good crops.

The Southern district promises 10 per cent. above the average, and the northern district shows medium crops.

Sultanas: Throughout the irrigation areas, Sultanas promise fair to good crops, and the indication is for a normal crop.

Wine Grapes: Apart from the areas affected by frost in the irrigation areas of the Murray Valley, the crop promises to be normal.

In non-irrigated areas, the northern district shows a light crop; Southern district and Adelaide Plains promise good, average yields.

1940 "Fruit World" Annual

The "Fruit World" Annual is now on the press and copies will be available shortly. This is a very comprehensive production setting out the statistical position regarding the various branches of the fruit industry in Australia, together with a world-wide review of the several classes of fruit production. It is pointed out that the world production of Apples annually is 500,000,000 bushels, and Pears over 160,000,000 bushels. The dried fruits and canned fruits industries are dealt with, together with a valued article on manuring. Colored pictures are included of the many fruit pests and diseases, together with latest devices concerning control methods.

MID MURRAY NOTES—(Continued from page 18).

visited California he found the dried fruits industry in the doldrums. With a large carry-over of the previous season, the prospects for the 1939 crop were anything but bright. Frequent attempts have been made to organise the Californian grower, but each time it has failed, chiefly due to the foreign element. Foreigners constitute 90 per cent. of the growers producing dried fruits in California, and they will not organise. With a home market of some 140,000 tons of Sultanas, and a production of about 200,000, and no chance of export overseas, it seems that no solution to this impasse can be found other than limiting the production to American requirements, and this means the uprooting of thousands of acres of vines.

Mr. Malloch delighted his audience by touching on the lighter side of his trip in a manner one rarely hears. Quite apart from the solid deliberations on the dried fruits indus-

try, as a travel talk alone the address was worth going many miles to hear. Pathos and humor were interwoven in such a way as to hold the attention of the individual throughout the evening.



Grape harvesting is now in full swing.

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APPLES STRAIGHT FROM THE TREE

How to Assist to Bring About A Payable Price

MORE REGULAR CROPPING NEEDED ∴ THE QUESTION OF
ADDITIONAL COLD STORES ∴ FRUIT JUICES

(By A. L. Cobbledick, Carey's Gully, South Australia.)

PROPOSALS FOR IMPROVEMENTS in marketing, more regular cropping, fruit juices, and the question of extra cold storage space were dealt with in a paper by A. L. Cobbledick, Carey's Gully, S. Aust., before the recent Hills Branches Conference of the S. Aust. Bureau of Agriculture.

Mr. Cobbledick's paper was as follows:—

IT HAS BEEN ESTIMATED that the cost of producing a case of Apples is in the vicinity of 2/6. Allowing for this to be a reasonably correct estimate, orchardists who, dispose of their entire crop, or nearly so, straight off the tree, are not making very big profits when they sell some of their fruit for 2/- and 2/3 a case. This, of course, is not a regular occurrence, but it does exist, and with each succeeding full crop year growers have faced a steadily shrinking overseas market and a corresponding fall in price levels.

While every grower does not sell his fruit after this manner, there are quite a few who sell practically all they grow in the garden, and it is to these that the problem is quite a disconcerting one.

Growers can assist materially in bringing about a more desirable situation. The point of continuity of supply for both local and overseas markets gives room for thought, and concentration to this end should bring about no small amount of improvement.

Irregularity of Supplies.

Why should supplies to fill export quotas be short one year and glutted the next, or why should growers find it hard to sell good fruit for 2/6 one year and be able to get nearly 5/- for it the next, and that without any trouble.

While much of the cause can be attributable to the natural off-season cropping of the tree and the infestation of thrips,

frost, hail, and such like, there is still room for man to control to a certain extent. Instead of an orchardist picking, say, 4,000 cases one season and 2,000 or less the next, would it not be possible to assist to bring about approximately a 3,000 case average.

If 100 growers had 100 trees with 2 cases each on them of off-season fruit which they removed from the tree either by picking off or pruning off, it would amount to 20,000 cases less of practically second grade fruit which possesses a very short marketing period. This fruit is both inferior and poorly colored compared with the on-season fruit. It must be sold quickly after maturity and interferes with the normal marketing of the good keeping fruit.

This is only touching on the fringe of what the amount would really be if growers tackled the problem fairly and squarely. Nearly every grower experiences the same trouble, excepting those who are blessed with an off-season bearing orchard. On the real off-season any fruit from this type of tree helps to supplement the income and is worth the trouble of spraying, etc.

On nearly every orchard there is a certain percentage of the lesser selling varieties such as Buncombe, Strawberry Pippin, etc., and, seeing that the percentage of these is so small, growers could afford to sacrifice them altogether on full crop year in order to bring up the off-season average.

Cold Stores.

Other avenues of hope for growers may be found in co-operative cold stores, co-operative exporting, and in the manufacture of fruit juice from Apples.

Has saturation point been reached with cold storage, or is it yet in sight? With co-operatively managed concerns there is still room for further storage. It is the fact that growers every-

where are forced to sell so much of their fruit in a restricted time on an already heavily supplied market that has an adverse moral effect from the very commencement of the marketing season. If it was only to lengthen the time of the marketing season, further cold storage would have a beneficial and payable effect. Nearly all co-operative cold stores have their own packing facilities, and in this respect growers would still find a few pence added compared with that which goes out to the merchants when exported otherwise.

Fruit Juice.

The question of unfermented fruit juice from Apples, which has made such strides on the Continent and in England the last year or so, offers a ray of hope to the Apple growers of Australia.

In this respect Germany, in 1938, made as much as 30 per cent. of her Apple crop into fruit juice, which goes to emphasise its possibilities in Australia. At the present time the Council for Scientific and Industrial Research is experimenting in this direction, so that in the not far distant future we may expect to know a little more about it. "Necessity is the mother of invention," and another field for enterprise which may assist the industry is that of fruit by-products. Substantial developments have followed the efforts of trained leaders in U.S.A. in this matter, with pleasing results to the industry and the general public.

S. AUSTRALIAN FRUIT CROPS.

Latest advices from the Department of Agriculture indicate that returns from berry fruits are much below anticipation.

There is no major alteration from the report published last issue in relation to the prospects for other varieties of fruit.

U.S.A. FRUIT CROPS

Apples.

Official advices from U.S.A. state that the 1939 commercial Apple crop is estimated at 100,530,000 bushels, as compared with 82,395,000 in 1938, and 115,501,000 in 1937.

The State of Washington, on the Pacific Coast estimates its 1939 crop at 19,500,000 bushels, as compared with 22,400,000 in 1938. Oregon has 2,000,000, as compared with 2,617,000 in 1938. The States with heavier crops than last season are on the Atlantic Coast.

Pears.

For the entire United States the Pear crop is estimated at 30,577,000 bushels, as compared with 32,473,000 in 1938.

The estimate of Bartlett (W.B.C.) Pears in California for 1939 is 212,000 tons (compared with 234,000 tons in 1938 and 202,000 tons in 1937), and the production of Pears other than Bartletts in 1939 is 28,000 tons (compared with 48,000 tons in 1938 and 22,000 tons in 1937).

Grapes.

Production estimates in California for 1939 are for 548,000 tons of wine Grapes, 1,255,000 tons of Raisin variety Grapes, and 370,000 tons of table Grapes; or a combined all Grape estimate of 2,173,000 tons.

The total production of all California Grapes in 1938 was 2,531,000 tons; in 1937, 2,454,000 tons; and in 1936, 1,714,000 tons.

The estimate of the Grape crop throughout the United States is 2,470,530 tons in 1939, compared with 2,703,560 tons in 1938.

THE STORY OF BRAZIL.

Bananas, Oranges, and Pineapples are Largely Grown.

An extremely interesting and well illustrated publication totaling some 424 pages, entitled "Brazil, 1928," is to hand from Mr. Raul Bopp, Director of the Secretariat Federal Council for Foreign Trade, Rio de Janeiro.

This deals with the political situation, physical features, agriculture, livestock, industry, transport, internal and external trade, education, etc.

Reference to fruit shows that in 1937 there were produced 73,993,800 bunches of Bananas, of which 11,310,992 were exported to Argentina. The production of Oranges in 1937 was just on 37 million cases, of which nearly 5 million were exported (over 2½ million cases to Great Britain and 1,115,000 to Argentina).

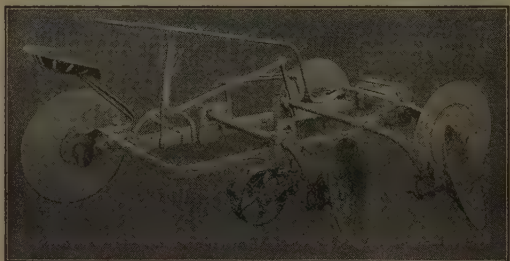
Substantial quantities of Lemons, Pineapples and Grapefruit are also produced.

"Everything that's bought goes to the buyer, doesn't it?"

"Some things, such as coal, go to the cellar."

"HILLMAN" ORCHARD STRIP PLOW

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A sturdy, strong plow equipped with reversible discs to enable the operator to plow up to, or away from the trees. Operated by a single lever and with nothing to catch branches of trees. To facilitate the movement of the plow around the orchard the discs are movable and lift clear of the ground.

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Two medium horses can work this machine all day without tiring. A machine may be obtained for a trial at any time.

The Meaning, Possibilities, and Limitations of Co-Operative Marketing

**Assembling - Grading and Standardising - Packaging - Storing
Processing - Transporting - Financing - Distributing - Selling**

THE SUBJECT of co-operative enterprise is being largely discussed to-day in all countries in the world. Some thinkers believe co-operation to be the solution of the present social ills of world maladjustment.

Co-operative producing and distributing societies are working successfully in all the Australian States. A "co-operation congress" was recently held in Sydney. In Victoria a Co-operative League has been formed to foster the movement, and to organise a central association consisting of all co-operative societies.

... ..

Recently the Agricultural Experiment Station at Pullman, Washington, U.S.A., published a Bulletin entitled "The Meaning, Possibilities, and Limitations of Co-operative Marketing," two of the conclusions being: (a) "Remember that intelligent co-operation pays. History proves it"; (b) "A good co-operator is a good citizen and a good neighbour. He helps to improve the community."

The first instalment appears hereunder:—

What Is Marketing.

MARKETING as applied to farm products consists of "spanning the gap" between the producers and the ultimate consumers of their products, of getting farm products from the farms into the hands of their final consumers.

Many persons think of marketing as only selling. Selling is really a very important part of marketing, and in some cases, as when a farmer sells a horse to his neighbour, it is about all there is to marketing. But to-day farmers and the final consumers of their product are in most cases far apart, and the spanning of the gap between them necessitates many and costly services other than selling. These other services are often the cause of most of the cost of marketing, and, furthermore, the manner in which they are performed determines whether selling can be satisfactorily done. **Successful marketing, therefore, requires attention not only to selling, but to all the marketing services.**

The marketing services involved in spanning the gap between the producer and consumer may be listed as follows:—

- (1) Assembling.
- (2) Grading and Standardising.
- (3) Packaging.
- (4) Storing.
- (5) Processing (in some cases).
- (6) Transporting.
- (7) Financing.
- (8) Distributing.
- (9) Selling.

Some of these services are performed only one time or at one point between the farmers and the consumers of their products. Others, such as storing and financing, must be performed more than one time and at more than one place.

All of these services need not necessarily be performed with all products. However, most of the services named are necessary with most products.

Some students of marketing consider that in addition to the services above named, there are other distinct services, such as assumption of risk, involved in marketing. In the above list, assumption of risk and other services which might be mentioned are considered as incidentally involved in the services listed and, therefore, are not separately named.

The Meaning and Significance of the Marketing Services.

(1) **Assembling** is bringing under one managerial control such quantities and varieties of goods as make possible successful and economical transportation, processing, and selling. There is assembling at country shipping points to secure full truckloads for cheap transportation and such a degree of variety as is necessary for the best selling of such quantities.

There also is assembling of a different kind by retail stores to secure that large variety of goods which consumers want from which to select their purchases. Assembling may be regarded as "buying" or its equivalent by marketing agencies.

Where assembling is done by co-operative organisations there may not be any actual buying, but services equivalent to buying must be performed to secure control of products to be marketed. How to do this assembling or securing control of products in the best and cheapest manner is an important question in marketing.

(2) **Grading and standardising** need less explanation, but they are services of which many producers do not fully appreciate the significance.

Consumers insist on having graded goods and on having the grades the same at all times, that is, standardised.

Grading and standardising cost money whether done before goods are shipped from country points or later, but efficient marketing is impossible without them, and one of the greatest opportunities for improvement in marketing often is through better grading and standardising.

(3) **Packaging** also costs money. But because most goods cannot be marketed without some kind of packaging, the problem either of reducing the cost of packaging or so improving the quality of the packaging as to cause goods to sell to better advantage is an exceedingly important one in securing either better or cheaper marketing.

(4) **Storing** also costs money. And this is a service which has to be performed at many places on the journey which the goods make from the producer to the consumer. Therefore either to reduce the cost of some of this storing or so to improve the kind of storage as to cause the goods to sell at a larger price is important in efficient marketing.

(5) **Processing** refers to such things as pasteurising milk, or converting it into butter, converting animals into meat, fruit canning, etc. Many farm products must be processed in their journey from the producer to the consumer, and in such cases the question of securing cheap and efficient processing is an important part of marketing.

(6) **Transporting** is with some farm products very expensive, and with others not so expensive. The cost of transporting Apples from Washington to the eastern part of the United States, for example, is about \$.65 (nominally $2/8\frac{1}{2}$) per bushel box, including cost of refrigeration. In all cases, to secure at the same time the cheapest possible and the best possible transportation service is important in marketing.

(7) **Financing** is connected with all the other marketing services, as in each case there is an expenditure or investment of money upon which risk is assumed and somebody expects to receive interest. Primary producers want their money when they part with their products, but a long time elapses before these products are purchased by final consumers and the money they pay is made available for the producers. Somebody must supply the money in the meantime.

Also there is necessary financing of warehouses, grading and processing machinery, store buildings, etc. Financing is, therefore, a large marketing expense, and no effort to improve marketing can succeed which does not carefully consider these financing problems.

How great are the financing problems in the marketing of some products may be judged from the fact that some successful tree fruit marketing organisations have permanently invested in property for packing, storing, and wholesale selling of their products as much as \$500 (£100) for each acre of orchard owned by members.

(8) **Distributing** is sometimes regarded as only a part of selling. It is here used in reference to activities resulting in decisions concerning when and where to sell. In the case of such an organisation as the California Fruit Growers' Exchange, which sells its products in many large cities only on fruit auctions, it refers to gathering information and reaching judgment as to when selling shall be done and seeing that one city does not get too much fruit while another comparatively does not receive enough. This determining of when and where to send products for sale, rather than the transportation or the selling, is marketing service, which, if properly done, involves expense, and is designated distributing.

(9) **Selling** means inducing customers to buy one's products. It may be used to include also collecting for sales. The expense of selling varies greatly with different commodities. With a product such as wheat selling expenses are small and such goods are sometimes said to sell themselves, because elaborate display and praise of their merits have comparatively little effect upon the demand for them. Wheat will always sell at some price and the main thing in a sale at any time is the price.

In selling motor cars and Apples the situation is different, and selling expenses are larger, because proper display and presentation of their merits will cause many to buy who would otherwise not buy at all, or to pay larger prices than they would otherwise pay.

It is important to note this tendency of selling expenses to be larger where more selling expense pays.

Pure bred live stock for breeding purposes has a larger selling expense than packer hogs; and Apples have a larger selling expense than wheat for the reason that it pays to spend more for selling effort in the case of pure bred live stock and Apples than in the case of packer hogs and wheat.

MEANING, POSSIBILITIES & LIMITATIONS OF CO-OPERATIVE MARKETING—(Continued)

Selling is an exceedingly important part of marketing and a service to which much attention must be given. But all the other services must be constantly kept in mind in considering possible improvements. Efforts of growers to secure more for their products cannot attain great success unless they realise that marketing involves much more than selling.

Sometimes the marketing steps are enumerated as country buying, shipping, wholesaling, jobbing, retailing, etc., and the middlemen who do these things are said to be engaged in marketing services. This is quite true. But by directing attention to the actual services which must be performed in marketing such as: (1) assembling (2) grading and standardising, (3) packaging, (4) storing, (5) processing, (6) transporting, (7) financing, (8) distributing, and (9) selling, producers will be able better to consider plans for either improving the quality of these marketing services, so that their products will finally sell for more money, or for decreasing the cost of the services, so that they will receive a larger share of what their products sell for.

To

improve present methods

of marketing it is necessary either to get these marketing services performed so much better that the increased returns will more than pay for any additional expense incurred, or to get them performed for less expense and yet so maintain the quality of the services that the net returns will be greater. It is always a question of getting performed either better or cheaper the nine services above listed.

What is Co-operative Marketing?

CO-OPERATIVE MARKETING as applied to farm products refers to performing any of the marketing services explained under "Marketing" by the producers acting together, or co-operatively. "Co-operation in marketing" is really more exact, and, except for awkwardness would be a better expression than "co-operative marketing." This is because most "co-operative marketing" organizations really perform only a part of the marketing services involved in "spanning the gap" between the producers and the consumers of their products.

Thus the noted California Fruit Growers' Exchange in marketing the Oranges of its members carries its co-operative activities only to the point where the Oranges are sold at wholesale to jobbers in the cities to which they are shipped through the Exchange. The jobbers who buy in railway truck loads or parts of truck loads to sell to retailers, and the retailers who sell to final consumers operate as private enterprises. The Exchange does in fact, through its "Dealers Service," assist the retailers in selling the Oranges which it earlier sold at wholesale. But it does not do jobbing and retailing.

In the great majority of cases it is impracticable for the producers to carry the marketing of their products to the point of selling to consumers at retail. Retailing must in general be done by persons who sell many things.

Apple growers, for instance, will receive most for their Apples if Apples are sold by as many fruit and grocery stores as possible. This means that Apples must be retailed by persons who retail many other things also, or that Apple retailing must in general be done by persons other than the growers acting co-operatively.

The term "co-operative marketing," therefore, does not imply that all marketing services involved in marketing the product handled are co-operatively performed. Co-operative marketing, or "co-operation in marketing" may consist of co-operation in assembling, grading and standardizing, packaging, storing, processing, transporting, financing, distributing or selling, or any combination of these. Success in selling is the final objective in

marketing. But selling to be successful must be supported by success in the other services.

In order that an agricultural marketing organization may be classed as co-operative it is generally agreed that there must be two conditions.

(1) The control of the organization must be in the hands of the farmers whose products are marketed.

(2) The organization must be conducted primarily to pay to the producers whose products are marketed the greatest amount possible for those products, rather than to make as large profits as possible to those who supply the capital or control the management of the marketing enterprises. As usually stated the marketing enterprise must be conducted to make savings to the producers rather than profits from marketing as a distinct enterprise.

Some advocates of co-operative marketing have given other requisites which it must possess. Among these are:

- (1) Control must be on the basis of one-man-one-vote, regardless of the amount of capital supplied or products marketed by different members.
- (2) There must be a binding contract of three or more years duration.
- (3) Pooling of products must be practised.
- (4) The amount of stock which one person may hold must be closely limited.

In this last list there are enumerated features some of which at least are generally desirable in co-operative marketing organizations. But they are not necessarily essentials, and are certainly not all found in many of the organizations commonly considered the most successful co-operative marketing organizations in America. Thus, the California Fruit Growers' Exchange does not have the one-man-one-vote principle, but members have voting power proportionate to the acreage of their orchards. Many large and successful grain co-operatives do not have binding contracts, but permit members to sell grain to competing firms, and they also buy from persons who are not members; neither do they practice pooling.

Co-operative agricultural marketing associations in the United States by law are given special treatment under the anti-trust laws and also are provided special credit facilities through the Farm Credit Administration. The associations which are entitled to such special treatment or privileges must be carefully defined.

The definition

of a co-operative marketing association which broadly is applicable for these purposes is provided in the Capper-Volstead Act, which was originally enacted into law in 1922. The important features of this definition are that the association must consist of persons engaged in the production of agricultural products who are acting together in marketing products or purchasing supplies, that it must be operated for the mutual benefit of its members, that it must not handle products of non-members to an amount greater in value than such as are handled by its for members, and in addition either (1) no member of the association may be allowed more than one vote because of the amount of stock or membership capital which he may own therein, or (2) the association may not pay dividends on stock or membership capital in excess of 8 per cent per annum.

As it is very difficult to draw a hard and fast line between organisations which are co-operative and those which are not, and as co-operative marketing organisations which perform all the marketing services involved in spanning the gap between the producer and the consumer are very rare, especially in this country, in this bulletin all marketing organisations will be considered as co-operative which apparently meet the following requirements:—

- (1) Those that are controlled by producers and
- (2) are conducted for savings to producers rather than for large gain on capital invested in marketing and
- (3) perform any of the marketing services.

This does not mean that in some cases it would not be better if organisations performed more services than they do, or if they had other features which they lack; neither does it prevent such organisations from being co-operative in so far as they go.

Co-operative Purchasing Associations

resemble co-operative marketing associations in that they are conducted for the purpose of savings to members rather than for profit on invested capital. They must be controlled by those who purchase through them.

An international committee concluded that the following features were either essential or desirable in co-operative purchasing associations:—

- (1) Open membership.
- (2) Democratic control.
- (3) Dividend on purchase.
- (4) Limited interest on capital.
- (5) Political and religious neutrality.
- (6) Cash trading.
- (7) Promotion of education.



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What are the Different Types of Organisations for Co-operative Marketing.

No complete description of all the different forms of co-operative organisations and their features of management is possible, because very few co-operatives are conducted alike in all details. Some of the most important differences relate to:—

- (1) Kind of legal organisation and status under the law;
- (2) Whether a marketing contract is used, and if so what kind, and
- (3) Relation of single units to other units marketing like products. The principal differences among the organisations in these respects will be briefly indicated, and a few other differences noted.

Kinds of Legal Organisations and Their Status under the Law.

From the legal point of view the agricultural marketing co-operatives of Washington may, with a very few exceptions, be classified into three groups, as follows:—(a) those organised under the regular private corporation laws, (b) those organised under the Co-operative Marketing Act of 1921 as amended to date, and (c) informal unincorporated associations or pools.

(a) **Organisations Under Regular Private Corporation Laws.** Practically all the older co-operatives are organised under the general laws relating to private corporations, and those features of their formal organisation which give them their co-operative character are provided for in their articles of incorporation and by-laws. The laws of Washington governing such organisations are compiled in a pamphlet entitled "Laws of Washington Relating to General Organisation and Management of Private Corporations." This pamphlet should be valuable to persons either operating or considering the operation of a co-operative so organised. A copy of this pamphlet may be secured by addressing the Secretary of State, Olympia, Washington.

(b) **Organisations Under the Co-operative Marketing Act of 1921.** Many, though not all, of the co-operatives organised in Washington since 1921 have been incorporated under the Co-operative Marketing Act of 1921. Some of the organisations previously incorporated under the general corporation laws have changed their articles of incorporation to come under this Act. The laws applying to such organisations as distinct from those under the general private corporation laws are also included in the pamphlet mentioned above, entitled "Laws of Washington Relating to General Organisation and Management of Private Corporations," of which a copy may be secured by addressing the Secretary of State, Olympia, Washington.

(c) **Informal Unincorporated Associations or Pools.** Frequently farmers conduct group or co-operative marketing activities without incorporating in any manner. The important thing to be noted about such an organisation is that if it has any legal entity at all it is a partnership, in which each member may be held liable for the debts of the organisation or group to the full extent of all his property, instead of merely to the extent of

his membership fee or stock shares, as is the case where the organisation is incorporated.

Types of Marketing Contracts.

With regard to marketing contracts there are three classes of organisations. These are (a) associations whose members are not bound by contract to market their products through the organisation, (b) associations whose members are bound by contract to market through the organisation, but once per year have the privilege of withdrawing, and (c) associations whose members are bound to market through the organisation by a non-cancellable contract extending over several years.

The Early Co-operatives

In this country were generally organised as regular corporations with capital stock, and members were generally at liberty to market outside of the organisation if they preferred. Following this occurred the development of the type of organisation in which the members were bound by contract to market through their organisation, and were compelled to pay damages if they failed to do so, subject, however, to the condition that they might market on the outside for any given year provided they filed notice of their intention to do so within a certain fixed and limited period of time, early enough to enable the organisation to make its marketing plans accordingly.

The most famous organisation in the United States using this second type of contract is probably the California Fruit Growers' Exchange. The third type of contract in historical development, is one having a non-cancellable contract extending over a period of several years. This came into wide use about the year 1920, when its adoption was strongly urged by a certain co-operative organiser, Aaron Sapiro. Though this type of contract is still somewhat used, many organisations, which formerly used it, have changed to the second type above mentioned.

Relations of Single Units to Other Units Marketing Like Products.

Classified in another way, there are three general classes of co-operative organisations, as follows: (a) single independent local unit, unfederated; (b) local units independent as to local matters but united or federated with other similar local units for selling purposes; and (c) centralised organisations owning and operating a number of branches. Some organisations from one point of view belong in one of these classes, and from another point of view belong to another class.

Other Bases of Classification.

Among the other differences according to which marketing co-operatives may be classified are the following:—Whether they are stock or non-stock; whether they are selling organisations only or whether they also perform other marketing services; if they own property, whether the title to the property is vested in the main organisation or in a subsidiary; and the extent of the variety of commodities handled.

(To be Continued)

MOTOR NEWS AND NOTES

HINTS ON GREASING.

When greasing the king-pins, it is a good plan first to jack up the front wheels. This allows the grease to flow under the thrust bearing which normally is heavily loaded, and so does not receive the copious lubrication which it needs.

The steering should be worked from lock to lock to distribute the grease evenly.

If difficulty be experienced in forcing grease into running-gear bearings, such as the spring shackle-pins, get someone to rock the car while pressure is being applied with the grease-gun. This will usually enable the grease to be forced through, but should it fail, the power-greasing equipment at an up-to-date service station will usually develop sufficient pressure to break down the obstruction without need for dismantling the bearing to clean out the oil-ways.

Some types of oil-nipples occasionally fail through the ball-valve sticking. Screw out the nipple and free the ball by pressing with a nail or similar point. Then wash out any dirt with petrol or kerosene.

SOME SIMPLE PRECAUTIONS.

After a car has been out of commission for some time it is advisable to observe some simple precautions which will help to ensure a safe and good start.

Little oil will remain on the piston and rings. This may cause damage and possible hard starting due to poor compression.

Remove plugs and pour about a dessertspoonful of oil into each hole. Then turn the engine over a few times before attempting to start.

Drain the carburettor and refill with fresh petrol before starting up. The more volatile constituents may have evaporated making the starting more difficult. Remove any accumulation of dirt or water which may be in the carburettor.

THE VALUE OF GLYCERINE.

Lubricant and Preservative.

Glycerine is useful in solving problems connected with rubber parts of the car. It is both a lubricant and a preservative.

Oil is destructive to rubber, and cannot be used to silence squeaks in which rubber parts are involved. Windshields often squeak at the weather strips, and that is one place where a little glycerine can be applied.

With modern cars a spare wheel locker provides storage space where the tyre is protected from the damaging effects of light, which accelerate perishing of rubber. If an exposed spare cannot be provided with a cover serving the same purpose, it should be treated with a mixture of one part glycerine to four parts of water. This treatment will help prevent the development of small cracks in the rubber.

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CANNING AND JAM FRUITS

Goulburn Valley News and Notes

Satisfactory Balance Sheets of Shepparton, Ardmona and Kyabram Canneries

Biological Control of the Oriental Peach Moth.

(By Our Correspondent.)

THE CURRENT NEWS for the month and the most interesting topic of conversation amongst fruitgrowers has been the satisfactory balance sheets of the three co-operative canneries in the Goulburn Valley. A total clearance of all canned fruit and jams have been made, and a substantial profit by all three canneries, especially the Shepparton Preserving Co.

The Apricot crop is nearly three weeks later than usual. The picking of the Oullins variety commenced about ten days ago, and satisfactory prices were realised on the Melbourne market right up to Christmas, while early Peaches were very scarce and dear, realising from 14/- to £1 per case.

It is many years since early dessert Peaches have been so light as they are this year.

During the last few days we have had a real taste of Summer weather, with temperatures from 95 deg. to 100 deg., and canning Apricots are ripening rapidly and the crop is coming in with a rush. It is going to be difficult to handle, as there is a shortage of experienced labor this year, as many of our best men have enlisted and are in camp. Our good wishes go with them in their loyalty to the Empire in these difficult days we are passing through.

The Shepparton Preserving Co. have made a start processing Apricots this week, while the Ardmona Cannery at Mooroopna, and the Kyabram Cannery, will start operations on January 2, 1940. In the meantime all fruit coming in is being placed in cool stores.

Williams Pears show a definite improvement, and will reach an 80 per cent. crop. Codling Moth is not nearly so prevalent as usual, and growers are advised that the fourth spray with arsenate of lead must be completed not later than the first week in January.

Peaches.

Canning Peaches remain about the same estimate as in my last notes. The tonnage will be considerably less this season.

Shepparton Preserving Co. Annual Meeting.

Cannery Will Accept the Whole of the Fruit Crop.

15 Per Cent. Dividend Approved. Messrs. J. G. B. McDonald, M.L.A., and P. V. Feltham Elected Unopposed as Directors.

An announcement that the cannery would accept the whole of the fruit crop in the coming season was received with enthusiasm by growers at the annual meeting of the Shepparton Preserving Co. Ltd., at Shepparton, on December 14.

Reviewing the export market position, the Managing Direc-

tor, Mr. A. W. Fairley, predicted that if sufficient space were available the whole of Australia's canned fruit and jam would be exported to the United Kingdom.

With a record turnover of £741,794 the balance sheet revealed the stability of the company. Despite early unfavorable conditions, practically a total clearance of canned fruits and jams was effected. Essential materials for the coming season's operations were secured prior to the outbreak of war.

A nett profit of £34,746 and a statement that shareholders' money comprised 80 per cent. of the capital were further convincing evidence of the soundness of the company, which was described as "The Pride of Shepparton," and a model of efficient management.

Payment of 15 per cent. dividend on ordinary shares (absorbing £13,110) was decided upon, a six per cent. dividend on preference shares (£2,617), and a transfer of £20,000 to general reserve, leaving £8,327 as the balance to be carried forward to next year's accounts.

Messrs. J. G. B. McDonald, M.L.A., and P. V. Feltham were elected unopposed to the Board of Directors in succession to Messrs D. J. O'Dea and E. G. Simpson, who have retired. Mr. McDonald remarked that his appointment as a Director necessitated retirement from the organising side of the fruit industry, with which he had been long associated.

In recognition of the increasing prestige of the company and the additional responsibility of the Board, Directors' fees were increased to £100 per annum.

Tributes to the outstanding ability of the Managing Director (Mr. A. W. Fairley) were made practically by every speaker, and there was loud applause when Mr. Fairley stated that while he had considered retiring after 20 years' association with the company, he would not think of it at such a time as the present.

Teamwork on the part of the far-sighted Board's efficient staff and the most loyal suppliers in Australia was ascribed by a leading fruitgrower as the main factors responsible for the continued success of the cannery. He asserted that no other

primary industry was assured of a market in comparison with Shepparton fruitgrowers.

Ardmona Cannery.

Nett Profit £12,058.

Record Turnover.

Despite drought conditions which reduced production by 200 tons, Ardmona Fruit Products Co-operative Co. processed 6,787 tons of fruit, and showed a nett profit of £12,058.

The company enjoyed a very successful year, and had a record turnover, and has substantially improved its position. Satisfactory selling has been maintained on all markets. Stocks are reported to be very light and are required to complete Australian contracts, during the present month they will be all cleared before the new season's pack is available.

Owing to the drought conditions existing last season the amount of fruit handled by the factory decreased by 200 tons to 6,787 tons, giving a total production of nine and a half million cans of fruit and 6½ tons of pulp.

Prior to the season's operations four additional cool store chambers were erected and additional plant installed. These were in full use during the season, and functioned quite satisfactorily.

Messrs. H. E. Pickworth, P. A. Pyke were re-elected Directors of the company unopposed.

Sixty Thousand Parasites of the Peach Moth Arrive at Mooroopna.

Sixty thousand cocoons of the Macroncentrus parasite are now in quarantine in the C.S. and I.R. laboratory in Mooroopna, after several thousand miles journey from Moorestown, New Jersey, U.S.A.

The first shipment left on boat trip between May and August 23, the second left November 23 ex "Port Nicholson" from New Jersey to Sydney via the Pacific all in cool storage at a temperature of about 40 deg. F.

In about ten days' time, when the wasp stage is reached, they will be allowed out of the care of Mr. G. Helson, Officer in Charge of the laboratory, and released in district orchards.

They represent death for the Oriental Peach Moth. Now in the cocoon stage, these invaluable aids to the orchardists become lusty wasps in about ten days time. They will be paired

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Telegrams: Bingmach, Melb.

off by the laboratory and when they swarm away into the fruit trees another offensive against the Peach Moth will commence. The female parasite stings the young Moth caterpillar while it is tunnelling in the twigs and young growth of the Peach trees. The eggs of the parasite hatch in the body of the Oriental Moth caterpillars and the grub of the parasite begins to feed on the internal organs. At this stage the caterpillar turns into a chrysalis and is completely consumed by the wasp grub, which then forms its own chrysalis inside the caterpillar cocoon and after 14 days emerges as an adult wasp.

Its diet is restricted to Codling Moth and Oriental Peach Moth. If unable to feed on these it dies so there is no danger of it becoming uncontrollable. It does not sting human beings or animals, confining itself solely to the caterpillars. Liberations in colonies of 200 are being continued throughout the districts of Ardmona and Shepparton. Some recoveries have been made in Ardmona of overwintering parasites, showing that the wasp has been acclimatised to Australian conditions.

Field Day at Tatura

A SUCCESSFUL FIELD DAY was held at the Experimental Research Station, Tatura, Victoria, in mid-December. Growers attended from various parts of the Goulburn Valley. Mr. F. M. Read, M.Ag.Sc. (Chief Inspector of Horticulture) said that this 100 acre block was acquired in 1929. Three years ago money was made available for research work. Now, 30 acres has been used, the work including nursery and tree stocks and the breeding of varieties; manurial trials are being conducted. Trained research workers were needed, also a laboratory. Further, Mr. Read said that the Tatura Station could be made a nucleus for other research stations in the Goulburn Valley. He then dealt

with various aspects of irrigation of fruit trees. Mr. C. E. Cole, Horticultural Research Officer, spoke on the subject of manuring, and Mr. R. S. Harper, District Research Officer, addressed the meeting on the subject of Pear stocks. In the absence of Mr. W. Young (President, Northern Victoria Fruitgrowers' Association), Mr. J. G. B. MacDonald, M.L.A., thanked Messrs. Read and Cole for their helpfulness. Mr. W. F. Cooper (Lancaster) spoke appreciably of the Department of Agriculture and its officers. Mr. S. P. Cornish, Secretary, Northern Victoria Fruitgrowers' Association, thanked Mrs. A. H. Pyke for providing afternoon tea.

MINIMUM PRICES FOR 1940 FRUIT PROCESSING SEASON.

For the information of growers, advice has been received from the Fruit Industry Sugar Concession Committee setting out the undermentioned fixed prices for the 1940 fruit processing season.

Variety of Fruit.	For Canning.	For Non-Canning.	
		At Metropolitan Factory.	At Country Factory.
Black Currants per lb.	3½d.	3½d.	3½d.
Loganberries " "	3d.	2½d.	2½d.
Raspberries " "	3½d.	3d.	3d.
Red Currants " "	2½d.	2½d.	2½d.
Kentish Cherries " "	2½d.	2½d.	2½d.
Apricots, Oullins per ton	£9	£9	£8
Apricots, Other " "	£13	£11	£10
Plums " "	£8	£8	£7
Quinces " "	£8	£7	£6

Terms of Delivery Remain Unchanged. The determination of minimum prices for Peaches and Pears has been deferred until later in December, and these will be available at the Association Offices when to hand.

CANNED FRUIT EXPORTS.

THE following is a statement from the Australian Canned Fruits Board giving a summary of the exports of canned fruits from Australia from January 1 to November 30, 1939.

Country.	Fruit		Pine-		Total.
	Apricots.	Peaches.	Salad.	apples.	
	Cases.	Cases.	Cases.	Cases.	Cases.
U.K.	153,407	1,053,798	379,862	554	1,645,426
N.Z.	20,339	55,971	3,126	32	80,141
Canada	8,820	41,548	3,425	6,559	96,620
East	3,746	12,649	8,939	1,998	29,090
Misc.	960	1,735	2,416	75	5,786
Total	187,272	1,165,701	397,768	9,218	1,857,063



Canneries are now operating to their fullest extent processing Australia's fruit crop.

AUSTRALIAN CANNED FRUITS.

Control Board's Annual Report Warns Against Increased Plantings.

The Minister for Commerce (Senator McLeay), in submitting to Parliament the annual report of the Australian Canned Fruits Control Board, said that on the recommendation of the Board, the rate of levy imposed on exports of canned fruits under the Canned Fruits Export Charges Act 1926-1938 was reduced from one-twelfth of a penny to one-twenty-fourth of a penny per 30 oz. can on December 7, 1938. This reduction means a loss of revenue to the Board of approximately £7,000, but was made to assist processors with the disposal of their exportable surpluses. Unfavorable climatic conditions seriously affected the supplies of early fruits suitable for canning and reduced the Apricot and Pear pack much below those of 1938. Following late beneficial Summer rains, however, the late varieties of Peaches produced unexpectedly heavy yields resulting in a record pack for the 1939 season of 1,852,796 cases. The Board reports the maintenance of a satisfactory volume of sales to the United Kingdom and other overseas markets but sounds a note of warning against the dangers of unrestricted and indiscriminate extensions of orchard plantings without any consideration to available outlets for the processed fruit.

Canning and Jam Fruits

REPORT BY FRUIT INDUSTRY SUGAR CONCESSION COMMITTEE.

IN the 8th Annual Report of the Fruit Industry Sugar Concession Committee the finances show revenue of £263,425, made up from £216,000 Statutory Contribution plus a special contribution for Jam Exports of £47,425. The principal expenditure was as follows: Domestic Sugar Rebate, £73,670; Export Sugar Rebate, £133,046. Special Export Assistance: berry pulp 1937-38, £4,281/18/5; canned Apricots, Peaches, and Pears, 1938, £22,722/15/7; canned Apricots, Peaches and Pears, 1939, £21,403/13/4; canned Pineapples, 1938, £8,000; canned Pineapples, 1939, £2,000; jams and fruit jellies, £9,667/10/10. There was also a sum of £500 provided for scientific research in the Pineapple industry. Minimum prices for canned and jam fruits (previously published in "Fruit World") are set out in detail. The report points out that these are minimum prices only, and in many cases have been exceeded. The system has introduced an element of stability and security for growers which never previously existed. Reasons are given for the reduced minimum for Clear Centre and some other varieties of Peaches in 1939. The prospects for the 1940 crop of Apricots, Peaches and Pears are stated to be good so far as carryover stocks of canned fruit are concerned, but a vital consideration is the anticipated purchase by the United Kingdom Government of Australia's exportable surplus of these canned fruits. Very much depends on the prices that will be paid for them by that Government, and those prices, in turn, will depend largely on competitive quotations for American canned fruit produced again from much cheaper fresh fruit than Australian fruit. The difficult situation regarding Pineapples is dealt with in full, including the tremendous expansion of production (due largely to increased cultural efficiency). The Committee again contributed £500 to the Queensland Department of Agriculture towards the special campaign to increase the efficiency of Pineapple production and thus reduce production costs. This campaign is continuing to achieve marked success, and has already enabled many growers to increase their yields per acre at lower costs per ton of fruit.

The Committee concludes by a recommendation that scientific research should be carried out in relation to the production of Apricots, Peaches and Pears. **Intensive production rather than extensive production** is said to be the only worth-while policy.

The report is signed by Mr. A. R. Townsend, Chairman.

Other members of the Committee are Messrs. W. J. Short, Deputy Chairman (Queensland

Sugar Board), P. A. Feil, representing growers of jam fruits, W. Young (canning fruits), A. W. Palfreyman (proprietary manufacturers), A. W. Fairley (co-operative and State manufacturers).

The report of the fruit Industry Sugar Concession Committee is dealt with in much greater detail in the "Fruit World" Annual for 1940, now on the press.

TRADE WITH NEW ZEALAND.

Annual Report of Trade Commissioner for 1938/39.

The Australian Trade Commissioner in N.Z. (Mr. C. E. Critchley) points out that the import restriction policy introduced by the N.Z. Government in December, 1938, interfered with trade.

In introducing these restrictions, the Government placed the marketing and the importation of certain goods in the control of the Internal Marketing Department. Most of these are goods in which Australia is interested, particularly dried fruits, canned fruits, barley, fruit pulp, Lemon and Orange rinds in brine, candied peel, jams, jellies and marmalade. Up to date, control has been effected by the Department through the issue of import licenses, but consideration is being given to the methods of marketing to be followed in the future.

The development of the manufacturing industries in New Zealand will no doubt affect the trade in finished goods from Australia.

TRADE WITH CANADA.

Importance of Dried and Canned Fruit Trade.

The Assistant Trade Commissioner, Mr. R. R. Ellen, points out in his annual report that Canadian economy has, within the last decade, changed from a predominantly agricultural basis to one combining agriculture, mining and manufacturing.

It is pointed out that Canada's imports from Australia were valued at £2,434,200 for the fiscal year 1938, and £1,961,360 for 1939. The principal articles imported were Raisins, Currants, canned fruits, sugar, wines, hides and skins, gelatine, and wool.

In referring to canned fruit, the Assistant Commissioner states that, as compared with the United Kingdom, the market is a small one, and the situation has been affected by local production, which has increased from: Peaches 205,146 cases, Pears 161,052 cases in 1931, to Peaches 433,676 cases, Pears 510,101 cases in 1938. This local production has absorbed in increasing measure the market formerly obtained by California, and which it was hoped Australia would be able to capture as a result of the preferences accorded under the 1931 Australian-Canadian Trade Agreement.

HENRY JONES CO-OPERATIVE LTD.

The accounts of Henry Jones Co-operative Ltd. for the year ended October 31, 1939, show a satisfactory position. The report states that after providing for all outgoings, the income earned within Australia was £157,547, compared with £137,474 last year; income outside of Australia was £56,650, against £54,850 last year. This shows an expansion of profit of £21,600.

There was an interim dividend of 6d. per share to June 1. Out of the balance a dividend of 1/- was declared on income earned within Australia, and 9d. per share on income earned out of Australia.

The report states that increased profits were mainly due to improvements in the sales of jam to U.K. The directors did not share the view which had been expressed in certain quarters that large benefits will accrue during war years. During the last war the company sold jam to the British War Office at cost price.

With regard to canned fruits the chairman of directors, Mr. A. W. Palfreyman, referred to the move to persuade the British Government to buy Australia's surplus canned fruits. He believed, however, the industry would be better served if the sale of canned fruits were left to the ordinary channels.

NAILS FOR ALL PURPOSES.

Titan's Service to Orchardists.

With the millions of cases that are needed to pack and transport Australia's huge fruit crop every year, the matter of the best kind of nails to use becomes a vital question for the orchardist.

The Titan Nail and Wire Pty. Ltd. is a company that is contributing much to the fruit industry in that it is manufacturing the sort of nail most suitable for the important case making part of the orchardist's work. One often sees fruit damaged in transport or handling through cases being insecurely nailed or through lids and sides being split at the nail holes.

This year, perhaps more so than in other years, when export is reduced owing to war conditions, growers will need all the savings possible in production and distribution of their fruit, and any saving or improvement that can be made in case making will be welcomed. Behind Titan nails there is over fifty years of

experience, and their modern factory in South Melbourne, Victoria, is able to turn out the best nails for fruit packing purposes.

To meet the problem of split timber, the Titan Company has evolved a nail with a bifurcated (split) point which prevents the usual splitting of the shooks when the case is being nailed together. Not only fruit packers but the large packers of soap and other heavy goods packed in light cases have found Titan Bifurcated nails the most satisfactory that they have ever used.

But not only are Titan nails effective, they are also economical to use, since all designs are fully tested as to strength in various classes and sizes of case timber.

If 1½ x 15 Titan processed nails, with the extra holding power over 1½ x 14 ordinary, are used, a saving of 6/- to 8/- per cwt. can be made. With one cwt. of 1½ x 14 nails 1,578 cases can be made, but with 1½ x 15 processed nails 2,453 cases per cwt. can be made, which means 55 per cent. more cases. One Tasmanian builder states that the use of Titan nails has saved him hundreds of pounds during the past few years because they drive straight and do not bend; not only does he save on the cost of the nails, but his workmen save time by not having to pull out bent nails.

Besides nails, the Titan Company makes barbed wire so constructed that the barbs do not move, and Titan barbed wire also gives a longer length per cwt. than most other brands.

The office address of Titan Nail and Wire Pty. Ltd. is Lorimer-street, South Melbourne, S.C.5, and their telephone number is MX 2191 (2 lines.). Any enquiries or quotes desired can thus be made direct to the manufacturers.

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Fruit Prices in the Sydney Markets

SURVEY OF OPERATIONS FOR THE PERIOD NOVEMBER 25 TO DECEMBER 23, 1939.

INFORMATION RECEIVED during the month of November had given us some warning that supplies of stone fruits would not provide the bountiful harvests that should normally be expected, and the experience of the past month has been as was expected. Increased turnover was desired by all distributors and retailers, and additional quantities of fruit would have been welcomed by the consuming public. However, seasonal conditions have resulted in light crops of Plums, Apricots and Peaches in the Metropolitan early districts, and extremely light crops of Cherries from the Young and Orange districts.

The Wilson Plum season had just commenced when we went to press last month, but normal supplies did not eventuate, while the absence of this fruit in Queensland caused larger consignments than usual to be forwarded to the Brisbane market. At one stage, for a period of about two days, small Wilsons were inclined to accumulate in the market, but the declaration of the jam factory price by the Sugar Concession Committee created morale with sellers, and values immediately improved, the factory buyers securing only small quantities at 1/9 and 1/10 per half bushel. Wilsons, however, have finished, and the Santa Rosa Plum season is now in full force, supplies of this variety also being light. Normally, many Plums become over-matured and are sold at from 1/- to 3/- per half bushel, but this year very few sales have been below 3/-, while large choice fruit has sold at from 7/- to 10/-.

Values of Peaches have been at a remarkable level, the light crop resulting in the fruit being of very good quality. Early and mid-season types have mostly been marketed from the early Metropolitan districts, with Aunt Becky just appearing, while Carman, Braddock and Wiggins are expected to appear between Christmas and New Year. Almost any type of Peach has sold satisfactorily, and the main crop of Watts, Mayflower and November Bell have sold around the following rate:—20 to 22 dozen 3/-, 15 to 16 dozen 5/- to 6/-, 13 dozen 7/-, with larger sized fruit at from 8/- to 12/-. Outstanding brands of fruit have exceeded these price levels, up to 15/- being paid per half bushel. A few Peaches have arrived from the Young and Lavington districts, but most arrivals have been from Metropolitan sources.

Apricots from early districts on the Coast finished about the middle of December, since which time the M.I.A. has carried on supplying, the variety arriving being Trevatt. Until the last

week sales were mostly at from 6/- to 10/-, but heavier supplies caused a reduction so that most sales became 4/- to 6/-, with special at 7/- to 8/- per half bushel.

The Young district finished its very light crop of Cherries about the middle of December, and for several weeks supplies from all sources were very light. The arrival of 2,000 cases per day caused values for dark Cherries to remain firm at from 7/- to 10/-, while both Napoleon and Florence found a market at from 5/- to 8/-. Much fruit was diverted to the Queensland market by growers direct during this period. Heavy consignments for the Christmas market in Sydney failed to obtain the values expected, and prices on the main Christmas Eve market were only 6/- to 8/-

for dark and 4/- to 6/6 for light Cherries. Special orders in the country, of course, brought higher levels, but most sales would be within this price range.

Such has been the position in regard to stone fruits from the early districts, and it is expected that Inland supplies will be arriving in heavier quantities in the New Year.

The Orange market has been firm during recent weeks, small sized fruit at all times being preferred. Values, until Christmas week, were as follows:—Standard Local, count 80-138 8/- to 12/-, 150-216 11/- to 13/-, smaller 8/- to 10/6. On Monday of Christmas week, however, a rise of 4/- to 5/- occurred, although supplies were probably greater than at Christmas time for many years. The increased values were probably caused by the comparative dearth of other available fruits, and the Orange growers certainly reaped a harvest. The enthusiastic buying early in the week, however, appeared to exhaust resources of the retailer, and the market on the Friday before

Christmas had dropped several shillings. The quality of some Oranges coming forward indicates that Black Spot is likely to claim a considerable proportion of any fruit not already marketed.

Lemons showed no perceptible increase around Christmas, standard selling at 13/- when colored, with special shed stored to 15/- and 16/-, while the bulk of the fruit which was plain grade and somewhat green mostly sold at from 5/- to 11/-.

Tasmanian growers forwarded Apples heavily just prior to Christmas, almost 12,000 cases appearing during Christmas week, and very satisfactory values were obtained. Releases also continued to be made of New South Wales Granny Smith, up to 20/- being received. New season Apples were much lighter than usual.

Prices (Extra Fancy, Fancy, and Good): Carrington and Kirk, N.S.W., 12/- to 16/- per bushel; Crofton, Tas., 10/- to 15/-; Delicious, N.S.W., 12/- to 24/- (few higher); Democrat, Tas. and N.S.W., 12/- to 16/- (few



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References:

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higher); Granny Smith, N.S.W., 8/- to 15/-, special 16/- to 20/-; Yates, N.S.W. and Vic., 12/- to 16/-, few 18/-; new season cookers, N.S.W., 6/- to 11/-, few 14/-; "D" Grade lower.

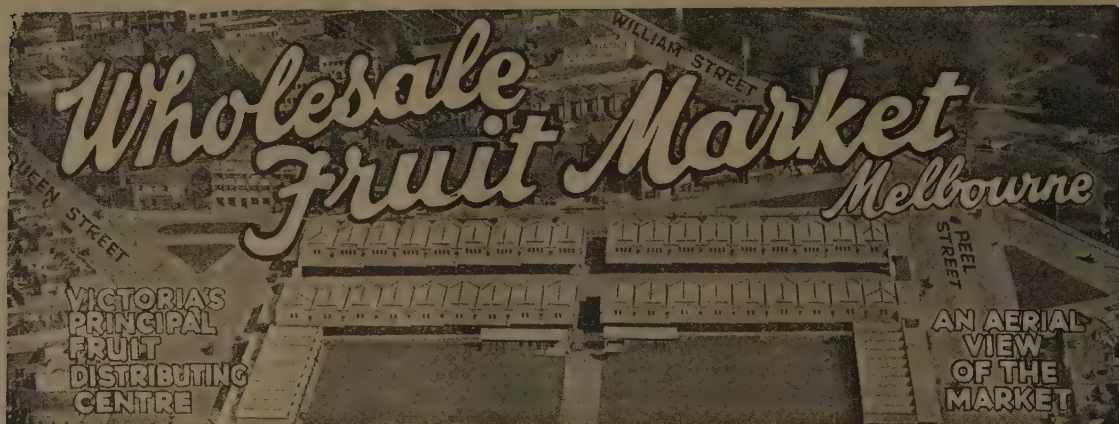
Tropical fruits, such as Mangoes, Melons, Papaws and Pineapples, had an excellent Christ-

mas market, Mangoes realising to 16/-, Cantaloupes and Californian Cremes from Queensland selling to 20/-, Papaws to 15/-, and Pineapples to 20/-, Bananas from both Queensland and N.S.W. had their best sale early in Christmas week, prices being to 20/-, but receding later

in the week. Passion fruit supplies from this State have continued very light, only a few cases coming forward from the far North Coast with supplies being supplemented from Queensland. Values have mostly been around 9/- to 10/-, with a

few sales higher and the inferior product lower.

Under the weight of heavy arrivals from the far North Coast and from Metropolitan sources, the Tomato market receded, and although values improved temporarily on the 14th and 15th they receded to around 8/- for the Christmas market. Colored fruit appeared to be too plentiful, and many buyers had purchased green fruit in preparation for their Christmas sales. The Queensland crop practically finished early in December, and latterly a few hundred cases have been coming forward from Balranald near the border of New South Wales. The Balranald product is packed in bushel cases similar to the Victorian Tomatoes, and were worth at from 8/- to 10/- on most occasions. This Christmas market will go down in the memory of all in the trade, as one in which values were consistently high. Prices over recent weeks have provided growers fortunate enough to possess fruit with maximum returns for comparatively light outlay in regard to picking, packing, and marketing expenses.—L. T. Pearce, Market Representative, Fruitgrowers' Federation of N.S.W.



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Peaches and Apricots, in short supply, were in firm demand.

Undermentioned is a list of market quotations as at 18/12/39:—

Broad Beans, 2/- bushel; French Beans, 5/- doz. lbs.; Beet-root, 1/6, 2/- doz.; Cabbages, large 5/- doz., medium 3/- doz.; Carrots, 2/-, 2/6 doz. bchs.; Cucumbers, 2/-, 3/- doz.; Cucumbers Apple, 1/6, 3/- doz.; Leeks, 2/- doz.; Lettuces, 1/6, 2/- doz.; New Onions, 3/-, 4/-; Parsnips, 2/- doz. bchs.; Peas, 8/-, 9/- bushel; Potatoes, new, 9/-, 10/- cwt.; Rhubarb, Cherry, 1/- doz. lbs.; Tomatoes, firsts 8/- $\frac{1}{2}$ case, seconds 7/- $\frac{1}{2}$ case; Trombones, 2d. lb. old, new 4/- cwt.; Turks Head, 12/- cwt.; Turnips, 2/-, 2/6 doz. bchs.; Swede, 2/-, 2/6 doz. bchs.; Vegetable Marrow, 3/- dozen.

Apples: Jonathan 15/- case, Statesman 15/- case, Democrat 15/- case; Oranges, common, 12/- case; Lemons, 20/- to 24/- case; Apricots, 6/-, 7/- $\frac{1}{2}$ case; Peaches, White Flesh 9/-, Yellow Flesh; Japanese Plums, 6/- $\frac{1}{2}$ case; Cherries: Light 10/-, 8/- $\frac{1}{2}$ case, Tartarians 12/-, 13/- $\frac{1}{2}$ case, Margaret 14/- $\frac{1}{2}$ case, Blacks 11/-, 12/- $\frac{1}{2}$ case; Gooseberries, 6/- $\frac{1}{2}$ case; Strawberries, 11/- doz. lbs.; Currants, Red, 5/- dozen; Bananas, 20/-, 22/- crate.

NEW ZEALAND.

Dunedin (21/12/39).—Messrs. Reillys Central Produce Mart Ltd. report as follows:—The past week has been a busy one, with good supplies of fruit and produce coming to hand. Consignments of dessert Apples are still available, and some very fine Delicious and Sturmers have been received ex cool store, and are realising satisfactory values.

Increased supplies of Christchurch and local grown Tomatoes have come to hand, and larger supplies from Nelson have also been received. Towards the end of the week values improved with an excellent demand.

Only small supplies of Strawberries are now available, and values show a considerable increase. Some nice quality Raspberries are coming on to the market, and are realising satisfactory values. Supplies of early Peaches are also being received, and are netting good values. Owing to the lateness of the season, there will only be small supplies of stone fruit available for Christmas. Cherries are in demand, with some very fine quality fruit arriving on the market. Supplies of both Red and Black Currants are increasing. Gooseberries have a better enquiry at more payable values.

Oranges have had a fair enquiry. A shipment of Jamaican fruit is expected to-day. There is also a small parcel of Jamaican Grapefruit arriving at the same time. Ripe Bananas are in short supply. A shipment of Samoan is due to-day, and should meet with a good demand.

Supplies of Californian Lemons are expected next week.

Prices (per case): Cal. Grapes, Emperors, 35/-; Australian Lemons 38/- to 49/-, Califor-

THE MARKET GROWER

Vegetable Culture

THE QUESTION OF WORKING HOURS — HINTS ON THE CULTIVATION OF LETTUCE, CABBAGE, CAULIFLOWER, CARROTS, PARSNIPS, CELERY, MELONS AND TURKS CAPS.

(By Our Correspondent.)

The question of hours of labor in vegetable gardens is again very much before the notice of employers and employees, though it seems that the proposed wages award is not going to be brought in, owing to the fact that the Parliamentary Members of the Country Party do not want to commit their constituents to the compulsion of shorter hours and a stabilised wage, but it looks as, with the march of time, and most other industries working much shorter hours, that vegetable growers will (if they want to hold a good class of employee) be compelled to shorten their working day.

I think this is one of the industries that feel the effect of depression or labor shortage more than most others, for when depression comes and tradesmen are thrown out of employment they naturally drift to the land, where there is always work to do, although there may not be much money available for the labor given it it a means of getting some money which will keep things going. Then, as things get better, this same class of labor drifts back to their old employment, until the time when labor gets scarce again. Then the best class of men who regularly work in the vegetable gardens find other channels of employment, which give better hours, and probably more money, and again we find that with a war in progress, and men going into the Army instead of industry, that good help is hard to get, and those employees who are still in the industry are restless and are agitating for shorter hours, which really seem to me to be justified.

Several leading growers during the Spring rush, to keep their employees satisfied, have been compelled to start work at 7.30 a.m. instead of 7 a.m., and some have even altered their

hours to 7.30 a.m. and 5.30 p.m., and I think if these hours were to be adopted generally they would give satisfaction to all.

Following the wet Winter and Spring constant care will be needed to keep the land from getting crusty on top and, if it is possible to work the horse scarifier between crops it is advisable to do so; where this cannot be done hoeing or hand scarifying will be necessary, for drying winds will quickly set the surface of the soil, and where land is laying in fallow for Autumn cropping, it is necessary to harrow frequently, or plough lightly.

As the days get warmer it is not advisable to plough fallow land too deeply, else the moisture is lost by being turned up to the sun and wind.

Lettuce which are maturing during this month must be watched very closely, for if they

once feel the need of moisture they will never heart, but run straight up to seed, no matter how green they may look; they should be watered every second day at least, and if the weather is at all warm they should be watered every day. This crop does not want to be worked too deeply and an occasional shallow hoeing is all that is necessary.

Cabbage and Cauliflower seed beds should also be watched closely through this month, and always be watered in the cool of the day.

Where the seed has come up too thickly it is advisable to thin out a little, for if the plants are too thick in the bed they will not fill out and make nice strong plants which are necessary for planting out.

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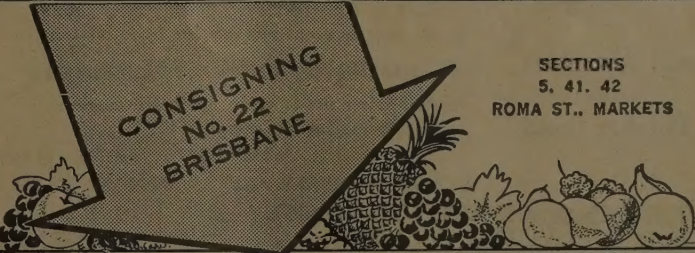
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Care must be taken also to watch for grub and blight (aphis). To keep nicely clean it will be found necessary to dust these beds twice a week with arsenate of lead and nicotine, for if this dust is always present the eggs will not be laid in the plant, and it is much easier to keep these pests out than to get them out when once they have become established.

Carrots and Beetroot may still be planted during this month, and the same principle of planting and watering will still apply as was suggested previously. The sowings which were made in November of these vegetables should now be nicely up and ready to thin out; both of these crops do best when thinned out about three inches from plant to plant, and in thinning care must be taken not to

disturb the plants which are being left, for if these plants are handled roughly, turned and twisted Carrots will result.

Land which is going to be planted with Parsnips in February should be well worked up during this month and, if a shower or two can be ploughed in, it will greatly help to get the crop up when the time comes to plant, for it is the moisture contained in the land which helps very greatly to establish these Summer crops during the first few weeks, when they come up.

Where

Onion Seed

is being saved, it should be well up in pod, and as the stalk becomes higher, so it is more subject to be affected by winds. To prevent damage being done to the stalk and greatly reduce

the possibility of this seed stalk being blown over it is wise to plough a furrow to the bulb on each side and drag the earth up to them in the same manner as you would to mould Celery, but, of course, the leaves must not be covered with earth, for then they cease to grow, but a good furrow on each side will securely hold the plant erect.

Melons and Turks which have not started to send out long runners should be constantly and well worked, but as soon as the

runners are long enough that they will be disturbed by working deep or rough working should be stopped, for these crops do not like to have the runners which send out small roots into the ground disturbed.

Leek plants in the bed should be kept well watered to make a good plant, and if they grow too long and lanky the tops may be cut off with a sickle or shears before the plant is too tall. This will be found to produce a good sturdy plant.

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Fruit Production in Victoria

Interesting Statistics

STATISTICS TO HAND from the Government Statist (Mr. O. Gawler) show fruit production for Victoria for the seasons 1937-38 and 1938-39 as follows:—

Fruit.	1937-38. Bushels.	1938-39. Bushels.
Pome—		
Apples	2,454,471	1,574,916
Pears	1,527,032	1,204,340
Quinces	52,733	45,415
Stone—		
Apricots	409,417	251,028
Cherries	41,987	40,888
Nectarines	17,134	18,371
Peaches	1,695,094	1,653,792
Plums	190,320	106,650
Prunes	58,967	39,597
Citrus—		
Lemons	187,828	162,428
Oranges	691,563	700,990
Other—		
Figs	19,528	15,019
Passion Fruit	33,290	21,094
Other Large Fruits	3,455	2,737
Total Large Fruits	7,382,819	5,837,265
	Cwt.	Cwt.
Total Berry Fruits	17,889	9,014
	lbs.	lbs.
Total Nuts	263,528	195,777
Dried Fruits.		
	1937-38.	1938-39.
	lbs.	lbs.
Apples	4,012	1,283
Apricots	81,474	54,995
Figs	10,822	2,436
Nectarines	1,392	690
Peaches	197,667	158,505
Pears	60,269	39,499
Prunes	817,320	603,650
Total Dried Fruits	1,172,956	861,058

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In response to numerous requests from growers for information as to who are members of the **Wholesale Fruit Merchants' Association of Victoria** the following list is given. All are members of the above Association, and are registered firms carrying on business in the

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Correspondence is invited by the Association.

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Science in Horticulture

CALCIUM SPRAYS FOR REDUCING CRACKING IN CHERRIES —
A COMPARISON OF WATER CULTURE AND SOIL FOR
TOMATOES — FRUIT TREE VARIETIES IN N.W. PACIFIC
STATES, U.S.A.

REDUCTION OF CRACKING IN SWEET CHERRIES FOLLOWING THE USE OF CALCIUM SPRAYS.

By L. Verner, in *Proceedings of American Society (Horticultural Science)*.

CRACKING IN CHERRIES at Idaho University was greatly reduced by spraying the fruit on the trees with solutions containing calcium, including Bordeaux mixture. The residue left on the fruit by the calcium sprays is, however, an objectionable feature in the practical application of the method. Calcium hydroxide left the least residue. The fruit can be sprayed when quite small.

A COMPARISON OF WATER CULTURE AND SOIL AS MEDIA FOR CROP PRODUCTION.

By D. I. Arnon and D. R. Hoagland, Reprinted from "Science," U.S.A.

EXPERIMENTS under controlled greenhouse conditions in the University of California were undertaken by the authors, whose comments on results include the following:—
(1) The average yields as well as the highest yields of individual Tomato plants from soil and water cultures do not justify the conclusion that the potential crop yield is higher in a favorable nutrient solution than in a fertile soil. Nor was any evidence found in support of the claim that higher yields per unit of surface can be expected from the water culture technique as a result of closer spacing of plants than is possible in soil.

(2) Heating the nutrient solution produced no great effect on the yield of Tomatoes. A marked increase of yield of Tomatoes from unheated nutrient solution resulted from continuous forced aeration. The beneficial effect of improved aeration was also reflected in the growth and yield of Tomatoes in sand culture.

(3) There is some indication that more water is required to produce a unit weight of fruit under water culture conditions than under soil conditions.

(4) No significant difference has been found in the calcium, phosphorus, magnesium, potassium, nitrogen and sulphur content of fruit of several varieties of Tomato grown in the greenhouse in fertile soil, sand, and water culture media. Neither was there a marked difference in content of carotene (provitamin A) or vitamin C.

(5) Plants grown by the water culture method are not thereby protected against diseases or insects attacking the aerial parts of plants. Results obtained, however, under competent supervision are likely to exceed those obtained under poor soil conditions and the authors' conclusions confirm previous work indicating the possibility of producing crops on a large scale by water culture methods.

The method appears to have commercial possibilities for growing high-priced, out of season crops.

FRUIT TREES IN THE WENATCHEE-OKANOGAN DISTRICT, WASH., U.S.A.

By W. W. Rufener, in *Bulletin Washington Agricultural Experiment Station*.

THE Wenatchee-Okanogan and the Yakima districts are the two chief fruit producing areas of Washington (Pacific Coast), and the former is one of the most important Apple producing centres in the U.S.A.

Information is given in this bulletin on the distribution throughout the district of different varieties of Apples and other fruits.

Apples, 75 per cent. of all fruit trees in district. There is a strong tendency to grow more **Delicious**, especially **Red Delicious** trees.

Pears, 15 per cent. of all fruit trees in the district. The number of Pears relative to Apples has increased steadily since 1920 and especially in areas where Apple tree removals have been the largest the Pear population has increased.

Bartlett was until recently the most favored variety, but d'Anjou now forms the majority of recent plantings.

Apricots, 6 per cent. of all fruit trees in district. Annual plantings since 1930 have decreased.

Peaches, 3 per cent. of all fruit trees in district. There has been a small but constant increase in number of trees since 1925, and a tendency to prefer **Hale** to **Elberta**.

Cherries, about 3 per cent. of all trees in district. Number of trees doubled between 1920 and 1935. **Bing** and **Lambert** varieties most popular, especially **Bing** in recent years. **Plums** and **Prunes**, less than 1 per cent. of all fruit trees.

Household Hints

Strain left over tea into a bottle, add a teaspoonful of glycerine to each pint of tea, and you will have an excellent window cleaning fluid.

To make candles last longer, hold each by the wick and coat with white varnish. The varnish, when dry, will prevent the wax running to waste.

A quick and effective way to remove grease spots from a kitchen table is to rub the parts with a slice of Lemon; then wash with hot water. This saves a lot of scrubbing.

Epsom salt added to water when washing a two-colored frock will prevent the colors running into one another.

Remove the shine from dark materials by sponging them with the following liquid: Boil Ivy leaves in sufficient water to cover them for a quarter of an hour, strain, and allow to cool. "Shine" will disappear like magic from black or navy blue suits or frocks if this method is adopted. It also removes stains from dark materials and improves the appearance of shabby silk umbrellas.

Onion juice will often take rust off steel. Rub it on generously, leave for a day and then polish it off. You can prevent rust on firebars by rubbing them with cut raw Onion before black-leading.

You can freshen gilt picture frames by wiping them with water in which Onions have been boiled.

Gold dance shoes that are tarnished should be sponged with Onion water. So should tarnished gold trimmings.

To keep a rabbit fresh, hang it up and slip a peeled Onion inside it.

Cut Lemon and salt will clean stains from copper and brass articles. Apply it briskly, then rinse in soapy water and dry with a soft cloth.

Try adding a piece of Lemon peel or a small lump of washing soda to the washing-up water to remove all traces of the odour of fish or Onions.

Scratches on silver will not show if a paste of putty powder and olive oil is rubbed on with a soft rag. Polish the silver afterwards with a chamois leather.

If your sewing machine belt is loose, pour a few drops of castor oil on it when loose. After running a few minutes the belt will tighten up.

When cleaning your windows add a little paraffin to the water, and you will find they will shine more quickly.

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Published by the

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Box 1944, G.P.O.

Melbourne

TASMANIA

APPLE CROP PROBABLY HEAVIER THAN LAST SEASON — PEARS DEVELOPING SATISFACTORILY — APPLE & PEAR ACQUISITION — JUICE TRADE DEVELOPMENTS.

(By Our Correspondent.)

CROP PROSPECTS in the north of State have been marred by hail, which did considerable damage round Exeter and Glengarry on the West Tamar. East Tamar did not suffer to any great extent. Both Apples and Pears are growing well and the trees in most places look healthy; up to date there has been enough rain to maintain growth.

There does not appear to be any change to report in the likely crops of each variety, the drop being about normal.

Southern districts are looking well in spite of an unusual

amount of cloudy overcast weather.

There is a little spot showing in some orchards, but so far nothing serious. Isolated hailstorms have done a little damage but I think the total is less than usual.

I notice that the official forecast for Apples is 50,000 cases less than last year, personally I should think the crop will be heavier than 1939 as abnormally dry Autumn conditions reduced the size to a serious extent.

Pears are showing up better now they are big enough to see easily. Winter Coles, which at

first seemed light, are looking much better. Josephines are still a good crop.

Most varieties of Apples are showing a good crop, many varieties will have to be thinned.

The Berry fruit crops are looking very well, the showery cool weather has suited them, I understand that the factories will require large quantities this season.

Strawberry growing seems to have revived a little and some of the beds look remarkably well. Of late years a disease got into them which made them unprofitable. The starlings and blackbirds are very troublesome this year and cause a really serious loss.

In most instances both the orchards and small fruit areas are being cultivated very well.

Fruit Juices.

The interest in the manufacture of fruit juices appears to

be spreading to all the States. It is to be hoped that the demand keeps pace with the supply, at present the demand seems to be rather limited; the Australian public do not appreciate the health value of these products as they should, especially in the hotter months. The cheaper synthetic drinks naturally appeal to the retailer as they allow a larger margin of profit.

Marketing Considerations.

I notice in the December issue that Mr. Black, of Pakenham, states that Tasmania claims to be able to produce Apples at 2/- per case; this is hardly correct, as under present conditions very few growers can produce the high standard now required for 2/- per case if everything is charged up correctly.

The trouble in estimating cost of production is that the cost is continually increasing, but the statistics on which the cost is calculated are several years behind the times and were probably inaccurate to begin with.

We must all agree with his plea for unanimity in regard to the acquisition scheme provided the details of the scheme are reasonably just and equitable, but if rumor is not a lying jade, some of the proposed details as to the working of the pool are unfair, particularly as regards varietal pools and distribution of final dividends (if any) let us hope these details will be arranged equitably.

If there is to be a pool then obviously all the fruit acquired is in the pool and must participate pro rata in any dividend the pool may pay whether it is actually sold or not.

I notice that the cost of picking is to be borne by the grower and not be included in cost of marketing, this is unfair, as picking is the first cost of the actual marketing and the argument that fruit bought on a naked basis usually has to be picked for the price does not apply in this case as the fruit is not being bought and the advance is made while the fruit is on the trees.

I cannot agree with our West Australian friends that the Federal Government has treated the growers and the industry generously. In reality they have only made an interest free loan for a month or so. They stand to lose nothing except indirectly, for their failure to give adequate assistance to the industry will have serious repercussions in the near future, especially on the revenue of the State Governments.

The New Zealand Government seems to take a more statesmanlike view of its fruit industry and evidently intends to keep it going until the crisis is over.

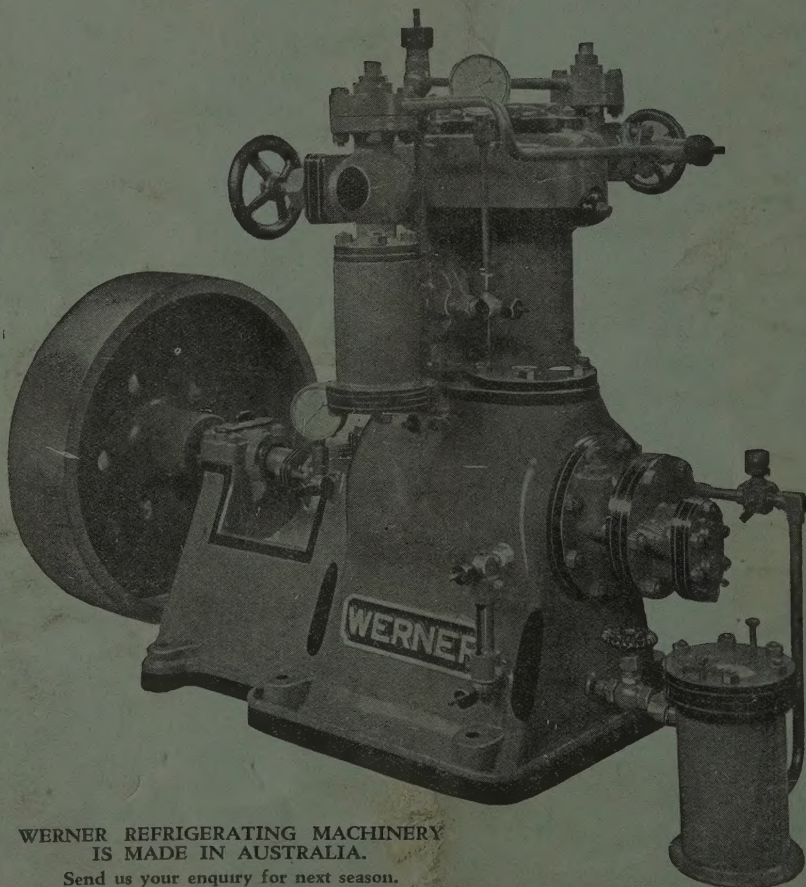
Angler (describing a catch): "The trout was this long—I tell you I never saw such a fish!"

Listener: "No, I don't suppose you ever did."

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